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FIGURE 1A

GCGGCCTCTTGTGTGAGGGCCTGTGGGATTCTCCGGATATGCGCGGAGTGTTCCTTATCGAGGGCCGGGTAACC
CGGTGCCTGGCCCTCTAGCCCCGTACCGGACTACATGTGCGGAGGAGAAGCTGCAGGAGAAAGCTCGAAAATGGC
AGCAATTGCAGGCCAAGCGCTATGCAGAAAAGCGGAAGTTTGGGTTTGTGGATGCCAGAAAGACATGCCCC
CAGAACATGTCAGGGAGATCATTGAGACCATGGAGACATGACCAACAGGAAGTTCCGCCATGACAAAAGGGTTT
ACTTGGGTGCCCTAAAGTACATGCCCCACGCAGTCTCTAAACTCCTGGAGAACATGCCTATGCCTTGGGAGCAGA
TTCGGGATGTGCCGTGCTGTACCACATCACTGGAGCCATTTCCTTCGTCAATGAGATTCCCTGGGTCAATTGAAC
CTGTCTACATCTCCAGTGGGGTCAATGTGGATTATGATGCGCCGAGAAAAAGAGATAGGAGGCATTTCAAGA
GAATGCGTTTTTCCCCCTTTTGTATGATGAGGAGCCGCCCTTGGACTATGCTGACAACATCTAAATGTTGAGCCAC
TGAGGGACAGCAGGAAGTATGTAAATGGCTCCACTTACCAGCGCTGGCAGTTCACACTACCTATGATGTCAACTC
TCTACCGCTGGCTAATCAGCTCCTGACAGACTTGGTGGATGACAACACTTCTACCTGTTTGAATTTGAAGGCCT
TCTTTACGTCCAAGGCACTCAATATGGCCATTCTCGAGGCCCAAATTTGAACCTCTTGTTCGAGACATCAACC
TACAGGATGAAGACTGGAATGAATTCAATGATATTAACAAGATTATCATCCGGCAGCCTATCCGGACTGAGTACA
AGATTGCTTTTCTTACTTGTACAACAATCTTCCACACCATGTCCACCTCACCTGGTACCATACTCCCAATGTTG
TATTCATCAAAACTGAAGATCCTGACTTGCCAGCTTTCTACTTTGACCCTTTGATCAACCCAACTCTCCCATAGGC
ACTCAGTCAAGAGCCAGGAACCATTTGCCGATGATGATGAGGAATTTGAGCTCCCGGAGTTTGTGGAGCCCTTCC
TGAAGGACACACCCCTCTATACAGACAATACAGCCAATGGCATTGCCCTGCTCTGGGCCCCGCGGCCCTTCAACC
TACGCTCTGGTTCGCACCCGTCGGGCCCTGGACATAACCCCTTGTCAAGAACTGGTATCGGGAGCATTGTCTGCCG
GGCAGCCTGTGAAGTGAAGGTCTCTCTACCAGAAGCTGCTTAAGTACTATGTGCTGAATGCCCTGAAGCATCGGC
CCCCTAAGGCTCAAAAGAAGAGGTATTTGTTCGCTCCTTCAAAGCCACCAAATTTCTTTCAGTCCACAAAGCTGG
ACTGGGTGGAGGGTTGGCTCCAGGTTTGGCCGAGGGCTACAACATGCTCAACCTTCTCATTACCGCAAAAACC
TCAACTACCTGCACCTGGACTACAACCTTCAACCTCAAGCCTGTGAAAACGCTCACCACCAAGGAAAGAAAGAAAT
CTCGTTTTTGGGAATGCTTTCCACCTGTGTGCGGAAGTTCTGCGTTTGGACTAAGCTGGTGGTGGATAGTCAGTGC
AGTATCGGCTGGGCAATGTGGATGCCTTCCAGCTGGCAGATGGATTGCAGTATATATTTGCCCATGTTGGGCAGT
TGACGGGCATGTATCGATACAATAACAAGCTGATGCGACAGATTGCGGTGTGCAAGGACCTGAAGCATCTCATCT
ATTATCGTTTCAACACAGGCCCTGTAGGGAAGGGTCTGGCTGTGGCTTCTGGGCTGCCGGTTGGCGAGTCTGGC
TCTTTTTCATGCGTGGCATTACCCCTTTATTAGAGCGATGGCTTGGCAACCTCTGGCCCCGCGAGTTTGAAGGTC
GACACTCAAAGGGGGTGGCAAAGACAGTAACAAGCAGCGAGTGGAGTCACATTTTGACCTTGAGCTGCGGGCAG
CTGTGATGCATGATATTCTGGACATGATGCCTGAGGGGATCAAGCAGAAACAAGGCCGGACAATCTGCAGCACC
TCAGTGAAGCCTGGCGCTGTGGAAGCCAACATTCCCTGGAAGGTCCCTGGGCTGCCGACGCCCATAGAGAATA
TGATCCTTCGATACGTGAAGGCCAAGGCTGACTGGTGGACCAACTGCCCCTACAACCGAGAACGGATCCGCC
GAGGGGCCACTGTGGACAAGACTGTTTGTAAAAAGAATCTGGGCCGCTCACC CGCTCTATCTGAAGGCAGAAC
AGGAGCGGCAGCACAACTACCTGAAGGACGGGCTTACATCACAGCGGAGGAAACAGTGGCAGTATATACCACCA
CAGTGCATTGGTTGGAAGCCGCGAGGTTTTACCCATCCCATTCCCCCACTCTCCTATAAGCATGACACCAAGT
TGCTCATCTTGGCATTGGAGCGGCTCAAGGAAGCTTATAGTGTGAAGTCTCGGTTGAACAGTCTCAGAGGGAGG
AGTAGGTCTGATCGAGCAGGCCTACGATAACCTCCAGAGGCGCTGTCCCGCATAAAGCGTCACCTCCTCACAC
AGAGAGCCTTCAAAGAGGTGGGCATTGAGTTCATGGATCTGTATAGCCACCTCGTTCCAGTATATGATGTTGAGC
CCCTGGAGAAGATAACTGATGCTTACCTGGACCAGTACCTGTGGTATGAAGCCGACAAGCGCCGCTGTTCCAC
CCTGGATTAAGCCTGCAGACACAGAACCACCTCCACTGCTTGTTTACAAGTGGTGTCAAGGCATCAATAACCTGC
AGGACGTGTGGGAGACGAGTGAAGGCGAGTGCAATGTGATGCTGGAATCCGCTTTGAGAAGATGTATGAGAAGA
TCGACTTGACTCTGCTCAACAGGCTCGTGCCTCATCGTGGACCACAACATAGCCGACTACATGACAGCCAAGA
ACAACGTCGTATCAACTATAAGGACATGAACCATAACGAATTCATATGGGATCATCAGAGGCCTGCAGTTTGCTT
CATTCATAGTGCAGTATTATGGCTGGTATGGATTGCTTGTATTGGGATTGCACCGGGCCAGTGAGATGGCTG
GGCCCCCTCAGATGCCAAATGACTTTCTCAGTTTCCAGGACATAGCCACTGAGGCTGCCACCCCATCCGTCTCT
TCTGCAGATACATTGATCGCATCCATATTTTTCAGGTTACAGCAGATGAGGCTCGGGACCTGATTCAACGTT
ACCTGACAGAGCACCCTGACCCCAATAATGAAAACATCGTTGGCTATAATAACAAGAAGTGTGCCCCGAGATG
CCCGCATGCGCCTCATGAAACATGATGTTAACTTAGGCCGGGCGGTATTCTGGGACATCAAGAACCGCTTGCCAC
GGTCAGTGACTACAGTTCAGTGGGAGAACAGCTTCGTGTCTGTGTACAGTAAGGACAACCCCAACCTGCTGTTCA

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FIGURE 1B

ACATGTGTGGCTTCGAGTGGCCGATCCTGCCTAAGTGCCGCCAGCTATGAGGAGTTACCCACAAGGACGGGG
TCTGGAACCTGCAGAATGAGGTTACTAAGGAGCGCACAGCTCAGTGTTTCTGCGTGTGGACGATGAGTCAATGC
AGCGCTTCCACAACCGCGTGCCTCAGATTCTCATGGCCTCTGGGTCCACCACCTTACCAAGATTGTGAATAAGT
GGAATACAGCTCTCATTGGCCTTATGACATACTTTCGGGAGGCTGTGGTGAACACCCAAGAGCTCTTGGACTTAC
TGGTGAAGTGTGAGAACAAAATCCAGACACGATCAAGATTGGACTCAACTCCAAGATGCCAAGTCGGTTCCCCC
CGGTTGTGTCTACACCCCTAAGGAGTTGGGTGGACTCGGCATGCTCTCAATGGGCCATGTGCTCATCCCCCAAT
CCGACCTCAGGTGGTCCAAACAGACAGATGTAGGTATCACACACTTTCGTTTCAAGGATGAGCCATGAAGAAGACC
AGCTCATTCCCAACTTGTACCGCTACATACAGCCATGGGAGAGCGAGTTCATTGATTCTCAGCGGGTCTGGGCTG
AGTACGCACTCAAGAGGCAAGAGGCCATTGCTCAGAACAGACGCTGACTTTAGAAGACCTAGAAGATTTCATGGG
ATCGTGGCATTCTCGAATCAATACCCCTCTTCCAGAAGGACCGGCACACACTGGCTTATGATAAGGGCTGGCGTG
TCAGAACTGACTTTAAGCAGTATCAGGTTTTGAAGCAGAATCCGTTCTGGTGGACACACCAGCGGCATGATGGGA
AGCTCTGGAACCTGAACAACTACCGTACAGACATGATCCAGGCCCTGGGCGGTGTGGAAGGCATTCTGGAACACA
CACTCTTTAAGGGCACTTACTTCCCTACCTGGGAGGGGCTTTTCTGGGAGAAGGCCAGTGGCTTTGAGGAATCTA
TGAAGTGAAGAAGCTAACTAATGCTCAGCGATCAGGACTGAACCAGATTCCCAATCGTAGATTACCCCTCTGGT
GGTCCCCGACCATTAAATCGAGCCAATGTATATGTAGGCTTTCAGGTGCAGCTAGACCTGACGGGTATCTTCATGC
ACGGCAAGATCCCCACGCTGAAGATCTCTCTCATCCAGATCTTCCGAGCTCACTTGTGGCAGAAGATCCATGAGA
GCATTGTTATGGACTTATGTACAGGTGTTTGACCACTGAACTTGTATGCAGTGGAAATTGAGACAGTACAAAAGGAGA
CAATCCATCCCCGAAAGTCATATAAGATGAACCTTCTCTGTGCAGATATCCTGCTCTTTGCCTCTATAAGTGA
ATGTCTCCCGGCCCTCATTGCTGGCTGACTCCAAGGATGTGATGGACAGCACCACCACCGAATACTGGATTG
ACATCCAGTTGCGCTGGGGGACTATGATTCCACGACATTGAGCGCTACGCCCCGGGCCAAGTTCTGGACTACA
CCACCGACAACATGATATCTACCCCTTCGCCCACAGGTGTAATCATCGCCATTGACCTGGCCTATAACTTGCACA
GTGCCTATGGAAGTGGTTCCAGGCGAGCAAGCCTCTCATACAACAGGCCATGGCCAAGATCATGAAGGCAACC
CTGCCCTGTATGTGTACGTGAACGGATCCGCAAGGGGTACAGCTCTATTATCTGAACCCACTGAGCCTTATT
TGCTTCTCAGAAGTGTGGTGAAGCTCTTCTCCAACAGATTATCTGGTTTGTGGATGACACCAACGTCTACAGAG
TGACTATTCAACAAGACCTTTGAAGGGAATTGACAACCAAGCCCATCAACGGAGCCATCTTCATCTTCAACCCAC
GCACAGGGCAGCTGTTCTCAAGATAATCCACACGTCCGTGTGGGCGGGACAGAAGCGTTTGGGGCAGTTGGCTA
AGTGAAGACAGCTGAGGAGGTGGCCGCCCTGATCCGATCTCTGCCTGTGGAGGAGCAGCCCAAGCAGATCATTG
TCACCAGGAAGGGCATGCTGGACCCACTGGAGGTGCACTTACTGGACTTCCCCAATATTGTATCAAAGGATCGG
AGCTCCAACCTCCCTTTCCAGGCGTGTCTCAAGGTGGAATAATTCGGGGATCTCATCCTTAAAGCCACTGAGCCCC
AGATGGTTCTCTTCAACCTCTATGACGACTGGCTCAAGACTATTTATCTTTACACGGCCTTCTCCCGTCTCATCC
TGATTCTGCGTGCCCTACATGTGAACAACGATCGGGCAAAAGTGATCCTGAAGCCAGACAAGACTACTATTACAG
AACCACACCACATCTGGCCCACTCTGACTGACGAAGAATGGATCAAGGTGAGGTGAGCTCAAGGATCTGATCT
TGGCTGACTACGGCAAGAAAAACAATGTGAACGTGGCATCACTGACACAATCAGAAATTCGAGACATCATCCTGG
GTATGGAGATCTCGGCACCGTCAAGCAGCGGCAGCAGATCGCTGAGATCGAGAAGCAGACCAAGGAACAATCGC
AGCTGACGGCAACACAGACTCGCACTGTCAACAAGCATGGCGATGAGATCATCACCTCCACCACCAGCAACTATG
AGACCCAGACTTTCTCATCAAGACTGAGTGGAGGGTCAAGGCCATCTCTGCTGCCAACCTGCACCTAAGGACCA
ATCACATCTATGTTTCTGACGACATCAAGGAGACTGGCTACACCTACATCCTTCCCAAGAATGTGCTTAAGA
AGTTTATCTGCATATCTGACCTTCGGGCCCCAATTCAGGATACCTATATGGGGTGAAGCCACCAGATAACCCCC
AGGTGAAGGAGATCCGCTGCATTGTGATGGTGCCGAGTGGGGCACTCACCAGACCGTGCACCTGCCTGGCCAGC
TGCCCCAGCATGAGTACCTCAAGGAGATGGAACCCCTTAGGTTGGATCCACACTCAGCCCAATGAGTCCCCGAGT
TATACCCCCAGGATGTACACCCATGCCAAGATCATGGCTGACAACCCATCTTGGGATGGCGAGAAGACCATTA
TCATCACATGCAGCTTCACGCCAGGCTCCTGTACACTGACGGCTACAAGCTGACCCCAAGTGGCTACGAATGGG
GCCGCCAGAACACAGACAAGGGCAACAACCCCAAGGGCTACCTGCCTTCACACTATGAGAGGGTGCAGATGCTGC
TGTCGGACCGTTTCTTGGCTTCTTCATGGTCCCTGCCAGTCTCGTGGAACTACAACCTTCATGGGTGTTCGGC
ATGACCCCAACATGAAATATGAGCTACAGCTGGCGAACCCCAAGAGTTCTACCACGAGGTGCACAGGCCCTCTC
ACTTCTCAACTTGTCTCCTGCAGGAGGGGGAGGTTTACTCTGCGGATCGGGAGGACCTGTATGCCTGACCGT
TTCCCTGCCTCTGCTTACGCTCCCGAGGCCGAAGCCTCAGCCCTCCAGACAGGCCGTGACATTACGAGTT
TGGCCTCTTTCCCTCTGTCTGTGCTTGTGTTGTGACCTCCTGATGGCTGTATCCTGAATAAAATATAATAAT

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FIGURE 1C

AAATTTTGTATAAATAGG

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FIGURE 2

MAGVFPYRGPNGPVPGLAPLPDYMSEEKLOEKARKWQLOAKRYAEKRKFGFVDAQKEDMPPEHVREIIRDHGD
MTNRKFRHDKRVYLGALKYMPHAVLKLLENMMPWEQIRDPVPLYHITGAISFVNEIPWVIEPVYISQWGSWMIM
MRREKRDRRHFKRMRFPPFDDEEPPLDYADNINLNEVPLEAIOLELDPEEDAPVLDWFYDHOPLRDSRKYVNGSTY
QRWQFTLPMSTLYRLANQLLTDLVDDNYFYFLDLKAFFTSKALNMAIPGGPKFEPLVRDINLQDEDWNEFNIN
KIIIRQPIRTEYKIAFPYLYNNLPHHVHLTWYHTPNVVFIKTEDPDLPAFYFDPLINPISHRHSVKSQEPLPDD
EEFELPEFVEPFLKDTPLYTDNTANGIALLLWAPRPFNLRSGRTRRALDIPLVKNWYREHCPAGQPVKVRVSYQKL
LKYVVLNALKHRPPKAQKKRYLFRSFKATKFFQSTKLDWVEGWLQVCRQGYNMLNLLIHRKNLNYLHLDYFNELK
PVKTLTTKERKKSREFGNAFHLCREVLRLTKLVDSHVQYRLGNVDAFQLADGLQYIFAHVGQLTGMRYKYKLMR
QIRVCKDLKHLIYYRFNTGPGVGKPGCGFWAAGWRVWLFMMRGITPLERWLGNNLARQFEGRHSGVAKTVTKQ
RVESHFDLELRAAVMHDILDMMEGKQNKARTILOHLSEAWRCWKANIPWKVPGLPPTIENMILRYVKAKADWW
TNTAHYNRERIRRGATVDKTVCKKNLGRRLTRLYLKAQEQRQHNYLKDGPYITAEETVAVYTTTVHWLESRRFSP
PFPPLSYKHDTKLILALERLKEAYSVKSRLNQSQRRELGLIEQAYDNLHEALSRIKRHLTQRAFKEVGIEFMD
LYSHLVVPVYDVEPLEKITDAYLDQYLWYADKRRLFPWIKPADTEPPPLLVYKWCQGINNLQDVWETSEGEENV
MLESRFKMYEKIDLTLLNRLVRLIVDHNIADYMTAKNNVVINYKDMNHTNSYGIIRGLQFASFIVQYGLVMDL
LVLGLHRASEMAGPPQMPNDFLSFQDIATEAAHPIRLFCRYIDRIHIFRFTADEARDLIQRYLTEHPDPNNENI
VGYNKKCWPRDARMRLMKHDVNLGRAVFWDIKNRLPRSVITVQWENSFVSVYKDNPNLLFNMGCFECRILPKC
RTSYEEFTHKDGWNLQNEVTKERTAQCFLRVDDDESMQRFHNRVRQILMASGSTTFTKIVNKWNTALIGLMTYFR
EAVVNTQELLDLLVKCENKIQTRIKIGLNSKMPSRFPVVFYTPKELGGLGMLSMGHVLIPQSDLRWSKQTDVGI
THFRSGMSHEEDQLIPNLYRYIQPWESEFIDSQRVWAEYALKRQEAIAQNRRLTLEDLEDSDWRGIPRINTLQFQ
DRHTLAYDKGWRVRTDFKQYQVLKQNPFWWTHQRHDGKLWNLNRYRTDMIQALGGVEGILEHTLFKGTYPFTWEG
LFWEKASGFEE SMKWKLTNAQRSGLNQIPNRRFTLWWSPTINRANVYVGFQVQLDLTGIFMHGKIPTLKISLIQ
IFRAHLWQKIHESIVMDLCQVFDQELDALEIETVQKETIHPKRSYKMNSSCADILLFASYKWNVSRPSLLADSKD
VMDSTTTQKYWIDIQLRWGDYDSHDIERYARAKFLDYTTDNMSIYPSPTGVLIAIDLAYNLHSAYGNWFFPGSKPL
IQQAMAKIMKANPALYVLRERIRKGLQLYSSEPTEPYLSSQNYGELFSNQIIWFVDDTNVYRVTIHKTFEGLTT
KPINGAIFIFNPRIGQLFLKIHTSVWAGQKRLGQLAKWKTAEEVAALIRSLPVEEQPKQIIIVTRKGMLDPLEVH
LLDFPNIVIKGSELQLPFQACLKVEKFGDLILKATEPQMVFLNLYDDWLKTISSYTAFSRLILILRALHVNNDRA
KVILKPKDKTTITEPHIWPILTDEEWIKVEVQLKDLILADYGKKNVNVVA

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FIGURE 3

GAATTCGGCACGAGATAAAAAATGGCTTCCAAAAGAGCTCTGGTCATCCTGGCTAAAGGAGCAGAGGAAATGGAGA
CGGTCATCCCTGTAGATGTCATGAGGCGAGCTGGGATTAAGGTCACCGTTGCAGGCCTGGCTGGAAAAGACCCAG
TACAGTGTAGCCGTGATGTGGTCATTTGTCCTGATGCCAGCCTTGAAGATGCAAAAAAGAGGGACCATATGATG
TGGTGGTTCTACCAGGAGGTAATCTGGGCGCACAGAATTTATCTGAGTCTGCTGCTGTGAAGGAGATACTGAAGG
AGCAGGAAAACCGGAAGGGCCTGATAGCCGCCATCTGTGCAGGTCTACTGCTCTGTTGGCTCATGAAATAGGTT
GTGGAAGTAAAGTTACAACACACCCTCTTGCTAAAGACAAAATGATGAATGGAGGTCATTACACCTACTCTGAGA
ATCGTGTGGAAAAGACGGCCTGATTCTTACAAGCCGGGGCCTGGGACCAGCTTCGAGTTTGCCTTGCAATTG
TTGAAGCCCTGAATGGCAAGGAGGTGGCGGCTCAAGTGAAGGCTCCACTTGTTCTTAAAGACTAGAGCAGCGAAC
TGCGACGATCACTTAGAGAAACAGGCCGTTAGGAATCCATTCTCACTGTGTTGCTCTAAACAAAACAGTGGTAG
GTTAATGTGTTTCAAGTCGCTGTCCTTACTACTTTTGCAGGAGTATGGAAGTCACAACACAGAGATTTCTC
AGCCTACAAATTGTGTCTATACATTTCTAAGCCTTGTTTGCAGATAAACAGGGCATTAGCAAACATAAAAAAA
AAAAAAAACCTCGAG

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FIGURE 4

MASKRALVILAKGAEEMETVIPVDVMRRAGIKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKEGPYDVVVLPGG
NLGAQNLSESAVKEILKEQENRKGLIAAICAGPTALLAHEIGCGSKVTTHPLAKDKMMNGGHYTYSENRVKDG
LILTSRGPGTSFEFALAIVEALNGKEVAAQVKAPLVVKD

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FIGURE 5

TTTTGTGAAGAGACGAAGACTGAGCGGTTGTGGCCGCGTTGCCGACCTCCAGCAGCAGTCGGCATTCTCTAACGC
AGAAACCCGGGAGTAGGAGACTCAGAATCGAATCTCTTCTCCCTCCCTTCTTGTGAGATTTTTTGTATCTTCAG
CTACATTTTCGGCTTTGTGAGAAACCTTACCATCAAACACGATGGCCAGCAACGTTACCAACAAGACAGATCCTC
GCTCCATGAATCCCGTGTATTTCATTGGGAATCTCAACACTCTTGTGGTCAAGAAATCTGATGTGGAGGCAATCT
TTTCGAAGTATGGCAAAATTGTGGGCTGCTCTGTTCATAAGGGCTTTGCCTTCGTTTCAGTATGTTAATGAGAGAA
ATGCCCGGGCTGCTGTAGCAGGAGAGGATGGCAGAATGATTGCTGGCCAGGTTTTAGATATTAACCTGGCTGCAG
AGCCAAAAGTGAACCGAGGAAAAGCAGGTGTGAACGATCTGCAGCGGAGATGTACGGGTTCAGTAACAGAACACC
CTTCTCCGTCCCTCTACTCAGCTCCTCTTTTGACTTGGACTATGACTTTCAACGGGACTATTATGATAGGATGT
ACAGTTACCCAGCAGTGTACCTCCTCCTCCTATTGCTCGGGCTGTAGTGCCCTCGAAACGTCAGCGTGTAT
CAGGAAACACTTCACGAAGGGGCAAAAGTGGCTTCAATTCTAAGAGTGGACAGCGGGGATCTTCCAAGTCTGGAA
AGTTGAAAGGAGATGACCTTCAGGCCATTAAGAAGGAGCTGACCCAGATAAAACAAAAAGTGGATTCTCTCCTGG
AAAACCTGGAAAAATGAAAAGGAACAGAGCAAAACAAGCAGTAGAGATGAAGAATGATAAGTCAGAAGAGGAGC
AGAGCAGCAGCTCCGTGAAGAAAGATGAGACTAATGTGAAGATGGAGTCTGAGGGGGGTGCAGATGACTCTGCTG
AGGAGGGGGACCTACTGGATGATGATGATAATGAAGATCGGGGGGATGACCAGCTGGAGTTGATCAAGGATGATG
AAAAAGAGGCTGAGGAAGGAGAGGATGACAGAGACAGCGCCAATGGAGGATGACTCTTAAGCACATAGTGGGGTT
TAGAAATCTTATCCCATTTATTTCTTTACCTAGGCGCTTGTCTAAGATCAAATTTTTTACCAGATCCTCTCCCTA
GTATCTTCAGCACATGCTCACTGTTCTCCCCATCCTTGTCTTCCCATGTTTATTATTCATATTGCCCCGCGCC
TAGTCCCATTTTCACTTCCTTTGACGCTCCTAGTAGTTTGTGTTAAGTCTTACCCTGTAATTTTGTCTTTAATTT
TGATACCTCTTTATGACTTAACAATAAAAAGGATGTATGGTTTTTATCAACTGTCTCCAAAATAATCTCTTGTTA
TGCAGGGAGTACAGTTCTTTTCATTCAACATAAGTTTCAGTAGTTGCTTCCCTAACTGCAAAGGCAATCTCATT
AGTTGAGTAGCTCTTGAAAGCAGCTTTGAGTTAGAAGTATGTGTGTTACACCCTCACATTAGTGTGCTGTGTGGG
GCAGTTCAACACAAATGTAACAATTATTTTGTGAATGAGAGTTGGCATGTCAAATGCATCCTCTAGAAAAATAA
TTAGTGTATAGTCTTAAGATTTGTTTTCTAAAGTTGATACTGTGGGATTTTGTGAACAGCCTGATGTTTGGGA
CCTTTTTCTCTCAAAATAACAAGTCCTTATTAAACCAGGAATTTGGAG

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FIGURE 6

MASNVTKTDPRSMNSRVFIGNLNTLVVKKSDVEAIFSKYKGIVGCSVHKGFVQYVNERNARA AVAGEDGRMI
AGQVLDINLAAEPKVN RGKAGVKRSA AEMYGSVTEHPSPSPLLSSSF DLDYDFQRDYYDRMYSYPARVPPPPPIA
RAVVPSKRQRVSGNTSRRGKSGFNSKSGQRGSSKSGKLKGDDLQA IKKELTQIKQKVD SLENLEKMEKEQSKQA
VEMKNDKSEEEQSSSSVKKDET NVKMESEGGADDSAEEGDLLDDDDNEDRGDDQLELIK DDEKEAEEGEDDRDSA
NGG

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FIGURE 7

CCGACATGTTGAGTCATAAGACGCGTCGGTGTTCAGTCTGTGTCTTGGAGGTGACCAGGGCCACTGCAGGCAT
GGTGCTAGCAGAGCTGTACGTCTCTGACCGAGAGGGAAGCGATGCCACGGGAGATGGAACCAAGGAGAAACCATT
TAAACAGGTCTAAAGGCTTTGATGACAGTAGGGAAAGAACCATTTCCTACCATTTACGTAGATTACAAAAAGA
AAATGAGAGGTGGAATGTTATTTCTAAATCACAGTTGAAGAACATTAAAAAGATGTGGCATAGGGAAACAAATGAA
GAGTGAATCCCGGAAAAGAAAGAGGCAGAGATAGTTTACGAAGAGAAAAGAACCTGGAAGAAGCAAAGAAGAT
TACCATTAAAAATGATCCAAGTCTCCCAGAGCCAAAATGTGTGAAGATTGGTGCCTTAGAAGGATATAGAGGCCA
AAGAGTAAAGGTGTTTGGCTGGGTCCACAGGCTGCGCAGGCAAGGAAAGAATTTAATGTTTTCTGGTGTTCGAGA
TGGTACAGGTTATCTTCAGTGTGTCTTGGCGGATGAGTTGTGTAGTGCTACAATGGAGTTCTCTTGTCCACGGA
GAGCAGTGTTCAGTGTATGGAATGCTAAATCTTACCCCAAAGGGCAAGCAGGCTCCAGGTGGCCATGAGCTGAG
TTGTGACTTCTGGGAATAATTGGGTTGGCCCTGCTGGAGGAGCTGACAACCTGATCAATGAGGAGTCTGACGT
TGATGTCCAGCTCAACAACAGACACATGATGATCCGAGGAGAAAACATGTCCAAAATCCTAAAAGCAGCATCCAT
GGTCACCAGGTGCTTTAGAGATCACTTCTTTGATAGGGGGTACTATGAAGTTACTCTCCAACATTAGTGCAAAAC
ACAAGTAGAAGGTGGTGCCACACTCTTCAAGCTTGACTATTTTTGGGGAAGAGGCATTTTTGACTCAATCCTCTCA
GTTGTACTTGGAGACCTGCCTCCCAGCCCTGGGAGATGTTTTTTGTATTGCTCAGTCATACCGGGCAGAGCAGTC
CAGAACACGAAGGCACCTGGCTGAGTACACTCAGTGGAAGCTGAGTGTCTTTCTGACTTTTGACGACCTCCT
GAACCGGTTGGAGGACTTGGTTTGTGATGTGGTAGATCGAATATTGAAGTCACCTGCAGGGAGCATAGTGCATGA
GCTCAACCCGAACTTTACGCCCCCAACCGGCCTTTCAAACGGATGAACTATTAGATGCTATCGTTTGGCTAAA
AGAACATGATGTAAAGAAAGAAGATGGAACCTTTCTATGAATTTGGAGAAGATATCCAGAAGCTCCTGAGAGACT
GATGACAGACACCATTAAATGAACCAATCTTGCTGTGTGCGATTTCCTGTGGAGATCAAGTCTTCTACATGCAGCG
ATGTCTGAGGATTCCCGTCTTACTGAATCTGTGCGAGTGTGTGATGCCCAATGTTGGTGAGATTGTGGGAGGCTC
AATGCGTATCTTTGATAGTGAAGAAATACTGGCAGGTTATAAAAGGGAAGGGATTGACCCCACTCCCTATTACTG
GTATACGGATCAGAGAAAATACGGTACATGTCCCATGGAGGATATGGCTTGGGCTTGGAAACGATTCTTAACGTG
GATTCTGAATAGGTATCACATCCGAGACGTGTGCTTATACCTCGATTTGTCCAGCGTTGCACGCCATTAACCAT
TTCTCCAGAAGCGTGGAGGAAAGATTATGAAAGGAACAGGCTCTTTAAAAAGAAAACAAAAGCCAGAATCTTC
CTTTTTTTTGTTCATTGGGGTTTCTCTTTCTGTTTTCTTTCTACTACCATAAAAACTATCTCAAATCACCTGA
ACATCAAGTGATATTAAGGTTGTCATCTTAAGAAAAATATCCATTTTTTTCTTAAGTTCGGGAAACAAAGTTCG
GGGAAAATACCTGGCATGAACTGTAGTTAGGGATACATTTACGATTTTACTCACTTTATCCAAGTTATTCATT
TTATTCAAGTTATATGTATGTATAAATCAACAATTTTAGATTATGGTGTAAAGATACTCCAGTAACTATCTTTCT
GTCCTTTTAAGTGACCTGGAATCTTTGATTATTTTTATTGCATCAATGAATTAACAAAAATCTTGGGGGAA
GAAATTGGCAATATCGTATAAAAAATCTGCTCATATTAGAACACAGTATAATTCAGCAGTAAACACTAGAAATCAA
TGAATAGCCTTTTGTATCAGTTATTAATCTTTTCTAACTCTGCTTAGCTGCTAATAATCCTGAGGCATAGAAAT
GAAGAATTTGTAAAAATAGAATTGCCTTAAAGGATTGAAGTAAGAACATAATTTTGGGAGAGTTTTTTAGTGA
TTCACAGTATCCCTCTTAGCATTAAATTTAAGGTAAAGAGGCAGATTGATTTCCCTCTTCTGTTAATTCCTAA
GTAATTAAGAATAAATAAGTTCCAAAAGAAATTGTAGCTGGAATCTTAATAACAATTGTGAGTGGCTGTTTGAGT
TGCCCCCACCATGTCCTTAGATCTAATCTGTGCTACCTTATTAACCTCACAGCAGGCTTACTGAATGGCTTCATTT
CAGATTTAGTTGATTTCTCCACCAAATGCATGTCATGTATTCTCAATAGGCTGTATTCCCAGCAGTCAATAAATG
AACACCCGTAAAAA

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FIGURE 8

MVLAELYVSDREGSDATGDGTKEKPFKTGLKALMTVGKEPFPTIYVDSQKENERWNVISKSQKNIKKMWHREQM
KSESREKKEAEDSLRREKNLEEAKKITIKNDPSLPEPKCVKIGALEGYRGQVRKVFGWVHRLRRQGKNLMFLVLR
DGTGYLQCVLADELQCQYNGVLLSTESSVAVYGMLNLTPKGKQAPGGHELSCDFWELIGLAPAGGADNLINEESD
VDVQLNNRHHMIRGENMSKILKARSMVTRCFRDHFFDRGYEYVTPPTLVQTQVEGGATLFKLDYFGEEAFLTQSS
QLYLETCLPALGDVFCIAQSYRAEQSRTTRHLAEYTHVEAECPLTFDDLLNRLEDLVCDVVDRILKSPAGSIVH
ELNPNFQPPKRPFKRMNYSDAIVWLKEHDVKKEDGTFYEFGEDIPAEAPERLMTDTINEPILLCRFPVEIKSFYMQ
RCPEDSRLTESVDVLMPNVGEIVGGSMRIFDSEEILAGYKREGIDPTPYWYTDQRKYGTCPHGGYGLGLERFLT
WILNRYHIRDVCLYPRFVQRCTP

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FIGURE 9

GGCAGTCGCGGAAGGCGGGGAGCTTGCGTGCTGCTGGGCTGAGCTGTCTGTCTCGTTTCTGTCCGCGCGCCCT
GCATCCCGGCCCGGGCGCCGCTGGAGGTCGCCGAGGAGCCACAGGGCTGACTGGTCTGCTGCCCGGGCCAGG
AGTGCCCTGGTGTAGCAGTCGCGGAGCCATCCCGCGCTCTGCTGCCATGACCGACTCTCCCTCAGAGGAGACTCT
TCCTCAGCGGTGGCTGCAGAGACAGATGAGCGGCGGCTCCTGGCCGCGGGACCGTGAGACGGGTTCGTGGCCGGC
CATTTAGGGGGACGCTGCGACCACCGCTGCGCCCTCCGACTGGTTCTTGGGCCCCGAAGCTCGCGGCGGG
CCCTGCGGGAGGCGGCATGCTCCCGGAGGCTGTGGCCGCTGGCTGGCGGGACGCGGGGCGGGGCGCTGT
GGCGCTTCTGGCCAAATCAGTGCCGCTTCGTACGGGCTGCGGTGCGGCGCGCAGCAGATCGCGCAGCTCTA
CGGCCGCTCTACTCCGAGAGCTCACGCCGCTTCTCCTCGGCCGCTCTGGCGCGGCTGCACGGCGCTCTGG
CCATGCCTCTGCCTTGATGGCGGCTTAGCCGGCGCTTCGTCTTGGGACGAGGAGAGGATCCAGGAGGAGGAGTT
GCAGAGATCTATTAATGAGATGAAGCGGTTGGAAGAAATGTCAAATATGTTTCAGAGCTCTGGAGTCCAGCACC
CCCTCCAGAACCAGGCCCCAAGAGGGAATGAAGATTCAGAGGGCAAAGAGCAACGTTGGGAAATGGTGAT
GGATAAGAAACACTTTAAGCTGTGGCGGCGCCCAATTACAGGCACCCACCTTTACCAGTACCGAGTTTTTGGAAC
CTACACAGATGTGACACCTCGGCAGTTCTTCAATGTTTACAGTGGACACAGAGTATAGAAAAAATGGGATGCCCT
GGTAATCAAGCTGGAGGTGATTGAGAGGGATGTGGTTAGTGGTTCCGAGGTTCTTCACTGGGTAACCCATTTTCC
TTATCCAATGTACTCACGGGATTATGTTTATGTTCCGCGGTATAGTGTGGATCAGGAAAACAACATGATGGTGT
GGTGTGCGGTGTGTGGAGCATCCGAGTGTGCCAGAGTCTCCAGAATTCGTGAGGGTCAGATCATATGAATCCCA
AATGTTTATCCGTCCCCACAAGTCATTTGATGAGAATGGCTTTGACTACTTACTAACAATACAGTGACAATCCCCA
AACGGTGTCTTCTCGCTACTGTGTTAGTTGGATGTTTCCAGTGGCATGCCAGATTTCTGGAGAAGCTGCACAT
GGCCACTCTGAAAGCCAAAGATATGGAGATTAAAGTAAAGGACTACATCTCAGCTAAGCCTCTGGAAATGAGTAG
TGAAGCCAAGGCCACCAGCCAGTCTCTGAGCGAAAGAACGAGGGCAGCTGTGGCCCTGCTCGGATTGAGTATGC
TTGACAGGCTTTGGGATAAGAAGGGACAAGGTGCTTCTAGCCCTGTCTCAGTCCGTTATCACTCTGCTGTAGAAG
GGGGACATGCCACATGTATTAGAAGGCATCTGCTGTAACCTCCAGTGCAAGATAATTCAATAACTGATGTCCCAT
TTCATTGAGAGCCCTTATTGCTCTTATCAAAACAGAAGAAGGCTACATTTGTGGGAGTGTGTCATATTCTCAGG
CCAAGTGTGTTGAAATTCGGTATCTCACTGAGCTAATCTGGAACAAACCTCTCACCTCAGGCCAGAGGGGATGA
CCTCCATTGCTTCTCTGAGTAGTTTCTCTGCTGACATTTCCAAATCCCACCATCGATTGTGCAGCGCTTTGGAT
TTCCTTCACTTCTCCAGGTCCACCTGGAAGTATAGTTGGCCAGTTGAGTCTCTCAAATGAGGGGCTACTGGGAG
TGCTCTTGGTAACAATCATGATGTGAATGGGTGTGAACGATACTTGGCTATGTTAAGTGCCTTGTCCGACCTTG
CTTTTATCTCTAGAGACATGAAGTTATTATTAATTTTTTTTTTTTTTTAAGTAGAGATGGAGTTTCACTCTGTTTC
CCAGGCTGGTCTTGAACCTCTGGGCCATGCCTGGCCAGGGACATGAATTTGTACAAAGAAATTTCCCTCCCTGCC
TGCACAATATCACCCATTGACTCACCTTATCCAAAGCAAGTTTCTGTGAATCGGCCAGTTCTTCTATATTCATT
GGATCATTGCCTCCTTCTAACCTTCCCCATTACCAAGAACACTGGGAGACTAATCCTTTTAGATAGTAGCTTT
TTGATGCTCAAAACATCACATTTAAATTTAGTTTAAAAATTTTTTAACTTTTGTGTCAAATAGGAGTTGAGGAAT
TGAGCAGGATTCTACCCTAGTCCGATTGTATAGAAAACACCATTTTGATTGAGGTATTATTTTTCATATTCAGG
TTTGACTTGTCTTTTTCAGAAGGCTAAAGTCAGAGGAATGGGGGCTGGGCCACTCCCTTGGAGCTCTCAGATCTA
CAGACAAGCTGTGTGAATGCATAGATGTAATCTTGTCTCAAATACTAATAACAGTGGAGATTGGTTTATGTTACC
ATTAAGTTCTCTAAAAAGTTTTCTTCTCTCTCAGAGCCAAAATAAAAGTGAACACTGTTTCAAGATAAGG
TCACAATCTGATGCTGTGAGTTTGACCGAGCTGGTTTTGCTTATGGTCATGCTGCAATTTGTTAGAATAATAGGG
ATCAAGTTTTAAATCCTCCTCTCCCTTTTTTCTGGAGTCTTGAGGGCCAGAGTTTTGTTTTTGTGTTTTGTTT
TTGTTTTCTGCTGCTACTGTTTTGTGGTGTGAAAAGTGGTTTAAACCTGAGACTAACTTAAACACTTCCTTG
ACCTTCTTGTGCTGCTGTTTCTTTTGTGCCAAGGAAGTAGCTGCCCCAGTGATGCTTGCCTTCTCCGCGTCAT
TGTTGGAAGAGGAGAGATGCATCGAGCAGTCCCAGCTGCTTTTCACTTATTACTTCTTCTTCCAGGACCTGACA
GAAGTCAGGGAAGAGTCCCTGGGTTATGTCCAACTTAGCACCTGCAATTGTTGGGATGTGGATGGATGTGTGCA
TAAGAGAGAGAGAGAATATGTGTGTGTGTGTGCGTCTGCGAGCGCACACATGCACAAGTGCGAAGGAGTTG
CGGTTGCTCCATGTTCTGACTTAGGGCAATTTGATTCTGCACTTGGGGTCTGTCTGTACAGTTACTCATGTCATT
GTAATGATTTCACTCCTAACTGTGACATTTTTATCAAATGTGTGAATAAATACATAAAGATTGGTACAAAAAAA
AAAAAAA

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FIGURE 10

MAALAGVFVWDEERIQEEELQRSINEMKRLEEMSNMFQSSGVQHHPPEPKAQTEGNEDSEGKEQRWEMVMDKKHF
KLWRRPITGTHLYQYRVFGTYTDVTPRQFFNVQLDTEYRKKWDALVIKLEVIERDVVSGSEVLHWVTHFPYPMYS
RDYVYVRRYSVDQENMMVLVSRAVEHPSVPESPEFVRVRSYESQMVIRPHKSFDENGFDYLLTYSDNPQTVFPR
YCVSWMVSSGMPDFLEKLHMATLKAKNMEIKVKDYISAKPLEMSSEAKATSQSSERKNEGSCGPARIEYA

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FIGURE 11

GCAACCTTTCCAAGGGAGTGGTTGTGTGATCGCCATCTTAGGGAAAAGATGTTCTCGTCCGTGGCGCACCTGGCG
CGGGCGAACCCCTTCAACACGCCACATCTGCAGCTGGTGCACGATGGTCTCGGGGACCTCCGCAGCAGCTCCCCA
GGGCCCACGGGCCAGCCCCGCCCTCGCAACCTGGCAGCCGCCCGTGGGAAGAGCAGTATAGCTGTGACTAT
GGATCTGGCAGATTCTTTATCCTTTGTGGACTTGGAGGAATTATTAGCTGTGGCACAACACATACAGCATTGGTT
CCTCTAGATCTGGTTAAATGCAGAATGCAGGTGGACCCCCAAAAGTACAAGGGCATATTTAACGGATTCTCAGTT
ACACTTAAAGAGGATGGTGTTCGTGGTTTGGCTAAAGGATGGGCTCCGACTTTCCTTGGCTACTCCATGCAGGGA
CTCTGCAAGTTTGGCTTTTATGAAGTCTTTAAAGTCTTGTATAGCAATATGCTTGGAGAGGAGAATACTTATCTC
TGGCGCACATCACTATATTTGGCTGCCTCTGCCAGTGTGAATTCTTTGCTGACATTGCCCTGGCTCCTATGGAA
GCTGCTAAGGTTCAATTCAAACCCAGCCAGGTTATGCCAACACTTTGAGGGATGCAGTCCCCAAATGTATAAG
GAAGAAGGCCTAAAAGCATTCTACAAGGGGGTTGCTCCTCTCTGGATGAGACAGATACCATAACCATGATGAAG
TTCGCCTGCTTTGAACGTACTGTTGAAGCACTGTACAAGTTTGTGGTTCCTAAGCCCCGCAGTGAATGTTCAAAG
CCAGAGCAGCTGGTTGTAACATTTGTAGCAGGTTACATAGCTGGAGTCTTTTGTGCAATTGTTTCTACCCCTGCT
GATTCTGTGGTATCTGTGTTGAATAAAGAAAAAGGTAGCAGTGCTTCTCTGGTCCTCAAGAGACTTGGATTTAAA
GGTGTATGGAAGGGACTGTTTGCCCGTATCATCATGATTGGTACCCTGACTGCACTACAGTGGTTTATCTATGAC
TCCGTGAAGGTCTACTTCAGACTTCCTCGCCCTCCCCACCTGAGATGCCAGAGTCTCTGAAGAAAAAGCTTGGG
TTAACTCAGTAGTTAGATCAAAGCAAATGTGGACTGAATCTGCTTGTGATCAGTGTGTTGAAGAAAGTGCAAAAG
GAACTTTTATATATTTGACAGTGTAGGAAATTGTCTATTCTGATATAATTACTGTAGTACTCTTGCTTAAGGCA
AGAGTTTCAGATTTACTGTTGAAATAAACCCAACTGTTTCATGAAAAAA

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FIGURE 12

MFSSVAHLARANPFNTPHLQLVHDGLGDLRSSSPGPTGQPRRPRNLAAAAVEEQYSCDYGSGRFFILCGLGGIIS
CGTHTALVPLDLVKCRMQVDPQKYKGIFNGFSVTLKEDGVRGLAKGWAPTFLGYSMQGLCKFGFYEVFKVLYSN
MLGEENTYLWRTSLYLAASASAEFFADIALAPMEAAKVRIQTQPGYANTLRDAAPKMYKEEGLKAFYKGVAPLWM
RQIPYTMKMFACFERTVEALYKFVVPKPRSECSKPEQLVVTFVAGYIAGVFCIVSHPADSVVSVLNKEKGSSAS
LVLKRLGFKGVWKGLFARIIMIGTLTALQWFIYDSVKVYFRLPRPPPEMPESLKKKLGLTQ

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FIGURE 13

CTGGAAGCGGGCGAGTCTCGTGCTGTGTCGGACCTGCAGCCCCTGGCCTTCCGCCACCATGGAGTACCTCATCGG
TATCCAAGGCCCGGACTATGTTCTTGTGCGCTCCGACCGGGTGGCCGCCAGCAATATTGTCCAGATGAAGGACGA
TCATGACAAGATGTTTAAAGATGAGTGAAAAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACACTGTACAGTT
TGCAGAAATATATTGAGAAAACGTGCAACTTTATAAGATGCGAAATGGATATGAATTGTCTCCACGGCAGCAGC
TAACTTCACACGCCGAAACCTGGCTGACTGTCTTCGGAGTCGGACCCCATATCATGTGAACCTCCTCCTGGCTGG
CTATGATGAGCATGAAGGGCCAGCGCTGTATTACATGGACTACCTGGCAGCCTTGGCCAAGGCCCTTTTGCAGC
CCACGGCTATGGTGCCTTCCCTGACTCTCAGTATCCTCGACCGATACTACACACCGACTATCTCACGTGAGAGGGC
AGTGGAACTCCTTAGGAAATGTCTGGAGGAGCTCCAGAAACGCTTCATCCTGAATCTGCCAACCTTCAGTGTTCG
AATCATTGACAAAAATGGCATCCATGACCTGGATAACATTTCCCTCCCAAACAGGGCTCCTTAACATCATGTCTT
CCCTCCCACTTGCCAGGGAACTTTTTTTTGATGGGCTCCTTTATTTTTTCTACTCTTTTCAGGCGCACTCTTGA
TAAATGGTTAATTGAGAATAAAGGTGACTATGGATATAATTAGCCCTCTGGTCCAGGTCTCAGTTTACCTAATA
TTACCTCAGAAAGGATATGGAGGGAAGATGATCTTTTGGCAGGTCTGACTTTTCTCCTGCTCCGCCCTCCATT
AACGCTCAGTACCCTTTAGCAGCTGACGGCCCCACGTTCTACTCCATGCTTGGCTTCCCTTTCCAAGTACTCTTT
CATATATTTTACTTGCTAGTATCTCCATTCTCTCTAAAGTAGTGGTTCTTTTGGCCCTTAAACTTAAATTTTAA
ATTAATTAACCTGAATTAATAATACATGCACCTAATGTAACATGCAACAGTACAAAAACATGTAGTGAAAAATA
TTTCTTCCAGAGCTGGGTGTGGTGGCTCATGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAGG
AGGTCAAGAGAGCGAGACCATCCTGACCAACATGGTGAAACCCCGTCTCTGCTAAAAATACAAAAATTAGCTGGG
CGTGGTGGCAGCGACCCCTAGTCCCAGCTACTGGGGAGGCTGAGACGGGAGAATCGGTGCAACCCGGGAGGCGGA
GGTTGCAGTGAGCCTAGATCGCGCCACTGTACTCCAGCCTGGCAACAGAGTGAGACTCCGTCTCAAAAAAAGAA
GGAAAAATGTTTCTTCCATCCCTATAATCCAGTCACTGTCTTCCGTCTCCCTTCCCTGGAGGAACTTCAGCTAC
TAATTTCTTATGTTTTTTAAGAGATATTCTGTACTGTGTAAAGTATACATACATACAGACACATGCCCCCTTA
AATTTTTTAGATTTATTTATTTATTTAGAGACAGGGTCTCACTCTAGCCCAGGCTGGAGTGCTGTGGCGTAATCT
TGGCTCACTGCAACCTCCGCCTCCCGGGCCCAAGTGATCCTCCCGTCTCAGCCTCCTGAGTAGCTGGGATTACAG
GCGCACACCACCAATGCCAGCTAGTTTTTGTGTTTTTCATAGAGACAGGGTCTCACCATGTCATTCAAGACCAG
CCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAAATATATAACAATTAGCCAGGCGTGGTGGCACACGCCT
GTAAACCCAACTACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAGCCCGGAGAGGGAGGTTGCAGTGAGCCGAG
ATCATGCCACTGCACTCCAGCCTGGCTGACAGAGCAAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 14

MEYLIQIGPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLCVGEAGDTVQFAEYIQKNVQLYKMRNGYEL
SPTAAANFTRRNADCLRSRTPYHVNL LLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFLTLSILDRIYTP
ISRERAVELLRKCLEELQKRFILNLPTFSVRIIDKNGIHDLDNISFPKQGS

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FIGURE 15

ACAGGCATTTTCCAAAGGCAAGCCTGGAGCGCACGGATCTGTATAACCGCGGAAGGCCCTGTTTCCGGTCCCTTG
CGCCTGCGCTCTTGCAAGCAAGAGCGGGAGGCTGGAGTAGAGGGAAGCCTGCAACCGGAAGTGAAGGCAGATT
TCCCTCCTTCGTCGCTGTTGCTGCCGCCATACGCGCTCTCCCTGTTTAGTTATGGCAGAGAACGATGTGGACAAT
GAGCTCTTGACTATGAAGATGATGAGGTGGAGACAGCAGCTGGGGGAGATGGGGCTGAGGCCCTGCCAAGAAG
GATGTCAAGGGCTCCTATGTCTCCATCCACAGCTCTGGCTTTTCGTGACTTCCTGCTCAAGCCAGAGTTGCTCCGG
GCCATTGTCGACTGTGGCTTTGAGCATCCGTCAGAAGTCCAGCATGAGTGCATCCCTCAGGCCATTCTGGGAATG
GATGTCTGTGCCAGGCCAAGTCGGGCATGGGAAAGACAGCAGTGTGTTGCTTTGGCCACACTGCAACAGCTGGAG
CCAGTTACTGGGCAGGTGTCTGTGCTGGTGATGTGTACACTCGGGAGTTGGCTTTTCAGATCAGCAAGGAATAT
GAGCGCTTCTCTAAATACATGCCCAATGTCAAGGTTGCTGTTTTTTTTTGGTGGTCTGTCTATCAAGAAGGATGAA
GAGGTGCTGAAGAAGAACTGCCCCATATCGTCGTGGGGACTCCAGGCCGTATCCTAGCCCTGGCTCGAAATAAG
AGCCTCAACCTCAAACACATTAAACACTTTATTTTGGATGAATGTGATAAGATGCTTGAACAGCTCGACATGCGT
CGGGATGTCCAGGAAATTTTCGCATGACCCCCACGAGAAGCAGGTCATGATGTTTCAAGTGTACCTTGAGCAAA
GAGATCCGTCCAGTCTGCCGCAAGTTCATGCAAGATCCAATGGAGATCTTCGTGGATGATGAGACGAAGTTGACG
CTGCATGGGTTGCAGCAGTACTACGTGAACTGAAGGACAACGAGAAGAACCAGGAGCTCTTTGACCTTCTGGAT
GTCCTTGAGTTCAACCAGGTGGTGATCTTTGTGAAGTCTGTGCAGCGGTGCATTGCCTTGGCCCAGCTACTAGTG
GAGCAGAACTTCCCAGCCATTGCCATCCACCGTGGGATGCCCCAGGAGGAGAGGCTTTCTCGGTATCAGCAGTTT
AAAGATTTTCAACGACGAATTCTTGTGGCTACCAACCTATTTGGCCGAGGCATGGACATCGAGCGGGTGAACATT
GCTTTTAATTATGACATGCCTGAGGATTCTGACACCTACCTGCATCGGGTGGCCAGAGCAGGCCGGTTTGGCACC
AAGGGCTTGGCTATCACATTTGTGTCCGATGAGAATGATGCCAAGATCCTCAATGATGTGCAGGATCGCTTTGAG
GTCAATATTAGTGAGCTGCCTGATGAGATAGACATCTCCTCTACATTGAACAGACACGGTAGAAGACTCGCCCA
TTTTGGAATGTGACCGTCTGTCTTCAGGAGAGGACACCAGGGTGGGGGTGAAGGAGACACTACTGCCCCACCC
CTGACAGCCCCACCCCATGGCTTCCATCTTTGTCATCACCACCACTCCTGAACCCCCATTTCTGATTTGTCAGA
ATTTTTTTTTTAACAAACTAAAAATGAAACACATGTGTCTGTGGTATCTAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 16

MAENDVDNELLDYEDDEVETAAGGDGAEAPAKKDVKGSYVSIHSSGFRDFFLLKPELLRAIVDCGFEHPSEVQHEC
IPQAILGMDVLCQAKSGMGKTAVFVLATLQQLEPVTGQVSVLVMCHTRELAFQISKEYERFSKYMPNVKVAVFFG
GLSIKKDEEVLKKNCPHIVVGTGPRILALARNKSLNLKHIKHFI LDEC DKMLEQLDMRRDVQE IFRMTPHEKQVM
MFSATLSKEIRPVCRKFMQDPMEIFVDDTKLTLHGLQQYYVKLDNEKNRKLFDLLDVLEFNQVVIFVKSQVRC
IALAQLLVEQNFPAAIAIHRGMPQEERLSRYQQFKDFQRRILVATNLFGRGMDIERVNI AFNYDMPEDSDTYLHRV
ARAGRFGTKGLAITFVSDENDAKILNDVQDRFEVNI SELPDEIDISSYIEQTR

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FIGURE 17

GC GGCGTTGTAGTTAAGCTCGTGTAACGGCGGCGGTGTCGGCAGCTGCTGTAGCGAAGAGAGTTTGGCGCGATGT
CTCACACCATTTTGTCTGGTACAGCCTACCAAGAGGCCAGAAGGCAGAACTTATGCTGACTACGAATCTGTGAATG
AATGCATGGAAGGTGTTTGTAAAATGTATGAAGAACATCTGAAAAGAATGAATCCCAACAGTCCCTCTATCACAT
ATGACATCAGTCAGTTGTTTGATTTCATCGATGATCTGGCAGACCTCAGCTGCCTGGTTTACCGAGCTGATACCC
AGACATAACCAGCCTTATAACAAAGACTGGATTAAAGAGAAGATCTACGTGCTCCTTCGTGCGCAGGCCCAACAGG
CTGGGAAATTAATTGTGTTGGGAAGCACTGGGGGGGTGGGGTGGGCTTGGAACACAGGTGTGTACAGCGTGCTGTA
GTGGAAGTTTTGTATCATAGTAATCCTGTTTCCACTTTGTTATACTCTAGCCAAGATTGACTGTATTAGATGAAA
TGTGAGGATCTTGTTCAATCGGAAACCCCGTTACCTCCTCTTTTCTTTCTCTTTCTTTTTTTTTTTTTTACTT
AAACATTTTTATGATGATTTAGATGGAAGTTGTTCTTCGTCACTTAATGTTGGTTCCAGTCCTTCAACTGTTTAT
ATCTACTTTTATAACATTCACATACTAACCCTTCTTCAAGATGGGGTGGGGGTGGAAATGCAGTTTAGCCATGTC
CTCAAGATAAAGTCTTGGTAAAAATAAATAAATGTCCTTTAGTTATAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 18

MSHTILLVQPTKRPEGRITYADYESVNECMGVCKMYEEHLKRMNPNSPSITYDISQLFDFIDDLADLSCLVYRAD
TQTYQPYNKDWIKEKIYVLLRRQAQQAGK

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FIGURE 19

CGGTTGGTGCGGCTCCATTGTTCTGTGTTTTAAGGCGCCATGAGGGGTGACAGAGGCCGTGGTCTGTGGTGGGCGC
TTTGGTTCCAGAGGAGGCCAGGAGGGGTTTCAAGGCCCTTTGTACCACATATCCCATTGACTTCTATTGTGT
GAAATGGCCTTTCCCCGGGTCAAGCCAGCACCTGATGAACTTCCCTTCAGTGAGGCCTTGCTGAAGAGGAATCAG
GACCTGGCTCCCAATTCTGCTGAACAGGCATCTATCCTTTCTCTGGTGACAAAAATAACAATGTGATTGATAAT
CTGATTGTGGCTCCAGGGACATTTGAAGTGCAAATTGAAGAAGTTCGACAGGTGGGATCCTATAAAAAGGGGACA
ATGACTACAGGACACAATGTGGCTGACCTGGTGGTGATACTCAAGATTCTGCCAACGTTGGAAGCTGTTGCTGCC
CTGGGGAACAAAGTCGTGGAAAGCCTAAGAGCACAGGATCCTTCTGAAGTTTTAACCATGCTGACCAACGAACT
GGCTTTGAAATCAGTTCTTCTGATGCTACAGTGAAGATTCTCATTACAACAGTGCCACCCAATCTTCGAAAACCTG
GATCCAGAACTCCATTGGATATCAAAGTATTGCAGAGTGCCTTAGCAGCCATCCGACATGCCCGCTGGTTCGAG
GAAAATGCTTCTCAGTCCACAGTTAAAGTTCTCATCAGACTACTGAAGGACTTGAGGATTCGTTTTCTGGCTTT
GAGCCCCCTCACACCCTGGATCCTTGACCTACTAGGCCATTATGCTGTGATGAACAACCCACCAGACAGCCTTG
GCCCTAAACGTTGCATACAGGCGCTGCTTGCAGATTCTGGCTGCAGGACTGTTCTGCCAGGTTTCACTGGGTATC
ACTGACCCCTGTGAGAGTGGCAACTTTAGAGTACACACAGTCATGACCCTAGAACAGCAGGACATGGTCTGCTAT
ACAGCTCAGACTCTCGTCCGAATCCTCTCACATGGTGGCTTTAGGAAGATCCTTGGCCAGGAGGGTGATGCCAGC
TATCTTGCTTCTGAAATATCTACCTGGGATGGAGTGATAGTAACACCTTCAGAAAAGGCTTATGAGAAGCCACCA
GAGAAGAAGGAAGGAGAGGAAGAAGAGGAGAATACAGAAAGAACACCTCAAGGAGAGGAAGAAGAAAGCATGGA
AACTCAGGAGTGACATTCCCTTCACTCCTTTTCTACCCAGGGGAAAGACTGGAGCCTTAAGCTGCCTGCTACTGG
CTTTACATGGTGACAGACATTCCGTGGATAGGAAGATAGCAGGAGAAAGTAAGTCCATAGAGTGTCATTCCACTG
GTTGATATTGGCTTAGCTGCCAGTCTCCCATTTGTGACCTATGCCATCCATCTATAATGGAGGATACCAACATTT
CTTCCTAATATTCTATAATCTCCAACCTCTGAAAACCCCTCTCTCAACTAATACTTTGCTGTTGAAATGTTGTGA
AATGTTAAGTGTCTGGAATTTTTTTTTTCTAAGAAAACTATTAAAGTACTT

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FIGURE 20

MRGDRGRGRGGRFGSRGGPGGGFRPFVPHIPFDYLCEMAFPRVKPAPDETSFSEALLKRNQDLAPNSAEQASIL
SLVTKINNVIDNLIVAPGTFEVQIEEVRQVGSYKKGTMGTGHNVADLVVILKILPTLEAVAALGNKVVESLRAQD
PSEVLTMLTNETGFEISSDATVKILITTVPPLNRKLDPELHLDIKVLQSALAAIRHARWFEENASQSTVKVLIR
LLKDLRIRFPGFEP LTPWILDLLGHYAVMNNPTRQPLALNVAYRRCLQILAAGLFLPGSVGITDPCESGNFRVHT
VMTLEQQDMVCYTAQTLVRILSHGGFRKILQGEGDASYLASEISTWDGVIVTPSEKAYEKPPEKKEGEEEEENTE
RTTSRRGRRKHGNSGVTFPSLLFLPKGKTGA

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FIGURE 21

CTCCGGCGCAGTGTGGGACTGCTGGGTATCGGAAAGCAAGCCTACGTTGCTCACTATTACGTATAATCCTTTT
CTTTTCAAGATGCCTGAGGAAGTGACCATTGGAGAGGAGGAGGTGGAGACTTTTGCCTTTTCAGGCAGAAATTGCC
CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCTTCGGGAGTTGATCTCTAATGCT
TCTGATGCCCTTGGACAAGATTGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA
ATTGACATCATCCCCAACCTCAGGAACGTACCCTGACTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT
CTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTTCATGGAGGCTCTTCAGGCTGGTGACAG
ATCTCCATGATTGGGCAGTTTGGTGTGGCTTTTATCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA
AAGACAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCTTCACTGTGCGTGCTGACCATGGT
GAGCCCATTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTACCTAGAAGAGAGGCGG
GTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTTCATAGGCTATCCCATCACCTTTTATTGGAGAAGGAACGAGAG
AAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAAGATGATGAAGAAAA
CCCAAGATCGAAGATGTGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAGAAAACTAAGAAGATC
AAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTGGACCAGAAACCCTGATGACATCACC
CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCAGTCAAGCACTTTTCT
GTAGAAGGTGAGTTGGAATTCAGGGCATTGCTATTTATCTCGTCGGGCTCCCTTTGACCTTTTGTAGAACAAG
AAGAAAAAGAACAACATCAAACTCTATGTCCGCCGTGTGTTTCATATGGACAGCTGTGATGAGTTGATACCAGAG
TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCGTAACATCTCCCGAGAAATGCTCCAGCAG
AGCAAAATCTTGAAAGTCATTGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGAC
AAGGAGAATTACAAGAAATTCATGAGGCATTCTCTAAAAATCTCAAGCTTGAATCCACGAAGACTCCACTAAC
CGCCGCCGCCCTGCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACATCTCTGTGAGAGTAT
GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCA
GCTTTTGTGGAGCGAGTGCGGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATGACGAGTACTGTGTG
CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG
GAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATGAAAGAAATCTTAGAT
AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTTGCTTTCACCTTGCTGCATTGTGACCAGCACCTACGGC
TGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACCTCCACCATGGGCTATATGATGGCC
AAAAAGCACCTGGAGATCAACCCTGACCACCCCATTTGTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT
GATAAGGCAGTTAAGGACCTGGTGGTGTGCTGTTTGAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT
CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA
GAGGAACCCAATGCTGCAGTTCTGATGAGATCCCCCTCTCGAGGGCGATGAGGATGCGTCTCGCATGGAAGAA
GTGGATTAGGTTAGGAGTTCATAGTTGGAAAACCTGTGCCCTTGATAGTGTCCCCATGGGCTCCCACTGCAGCC
TCGAGTGCCCTGTCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTCCCTCTCTGTCTGTGTGAA
GGCAGTAACTAAGGTGTCAAGCCCCATTCCCTCTTACTCTTGACAGCAGGATTGGATGTTGTGTATTGTGGT
TTATTTTATTTTCTTCAATTTTGTCTGAAATTAAAGTATGCAAAATAAAGAATATGCCGTTTTAAAAA
AAAAA

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FIGURE 22

MPEEVHHGEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNASDALDKIRYESLTDPSKLD SGKELKIDI
IPNPQERTLTTLVDTGIGMTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHN
DDEQYAWESSAGGSFTVRADHGEP IGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEI
SDDEAEEEEKGEKEEEDKDDEEKP KIEDVGSDEEDDSGKDKKKKTKKIKEKYIDQEELNKT KPIWTRNPDDITQEE
YGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRV FIMDSCELIPEYLN
FIRGVVDESDPLNISREMLQQSKILKVIRKNIVKKCLELFS ELAEDKENYKKFYEA FSKNLKLG IHEDSTNRRR
LSELLRYHTSQSGDEMTSLSEYVSRMKETQKSIYYITGESKEQVANS AFVERVRKRGFEVVYMT EPIDEYCVQQL
KEFDGKSLVSVTKEGLELPEDEEEKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA
NMERIMKAQALRDNSTMGYMMAKKHLEINPDHP IVETLRQKAEADKNDKAVKDLVLLFETALLSSGFSLEDPQT
HSNRIYRMIKLGLGIDEDEVAAEEPNAAVPDEIPPLEGDE DASRMEEVD

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FIGURE 23

GCAAAACCAACGCCTGGCTCGGAGCAGCAGCCTCTGAGGTGTCCCTGGCCAGTGTCTTCCACCTGTCCACAAGC
ATGGGGAACATCTTCGCCAACCTCTTCAAGGGCCTTTTGGCAAAAAAGAAATGCGCATCTCATGGTGGGCCTG
GATGCTGCAGGGAAGACCACGATCCTCTACAAGCTTAAGCTGGGTGAGATCGTGACCACCATTCCCACCATAGGC
TTCAACGTGGAAACCGTGGAGTACAAGAACATCAGCTTCACTGTGTGGGACGTGGGTGGCCAGGACAAGATCCGG
CCCCTGTGGCGCCACTACTTCCAGAACACACAAGGCCTGATCTTCGTGGTGGACAGCAATGACAGAGAGCGTGTG
AACGAGGCCCCGTGAGGAGCTCATGAGGATGCTGGCCGAGGACGAGCTCCGGGATGCTGTCTCCTGGTGTTCGCC
AACAAGCAGGACCTCCCCAACGCCATGAATGCGGCCGAGATCACAGACAAGCTGGGGCTGCACTCACTACGCCAC
AGGAACCTGGTACATTCAGGCCACCTGCGCCACCAGCGCGCAGGGGCTCTATGAAGGACTGGACTGGCTGTCCAAT
CAGCTCCGGAACCAGAAGTGAACGCGACCCCCCTCCCTCTCACTCCTCTTGCCCTCTGCTTTACTCTCATGTGGC
AAACGTGCGGCTCGTGGTGTGAGTGCCAGAAGCTGCCTCCGTGGTTTGGTCAACCGTGTGCATCGCACCGTGTGT
AAATGTGGCAGACGAGCCTGCGGCCAGGCTTTTTTATTAAATGTAATAGTTTTTGTTCGAATGAGGCAGTTTC
TGGTACTCCTATGCAATATTACTCAGCTTTTTTTATTGTAAGAAAGAAAAATCAACTCACTGTTTCACTGTGAGAG
GGGATGTAGGCCCATGGGCACCTGGCCTCCAGGAGTGCCTGTGTTGGGAGAGCCGGCCACGCCCTTGGCTTAGAG
CTGTGTTGAAATCCATTTTGGTGGTTGGTTTTAACCCAACTCAGTGCATTTTTTAAATAGTTAAGAATCCAAG
TCGAGAACACTTGAACACACAGAAGGGAGACCCCGCCTAGCATAGATTTGCAGTTACGGCCTGGATGCCAGTCGC
CAGCCCAGCTGTTCCCTCGGGAACATGAGGTGGTGGTGGCGCAGCAGACTGCGATCAATTCTGCATGGTCACAG
TAGAGATCCCCGCAACTCGCTTGTCTTGGGTACCCCTGCATTCCATAGCCATGTGCTTGTCCCTGTGCTCCCAC
GGTTCCCAGGGGCCAGGCTGGGAGCCACAGCCACCCCACTATGCCGCAGGCCGCCCTACCCACCTTCAGGCAGC
CTATGGGACGCAGGCCCATCTGTCCCTCGGTCCGCGTGTGGCCAGAGTGGTCCGTCGTCCCCAACACTCGTGCT
CGCTCAGACACTTTGGCAGGATGTCTGGGGCCTCACCAGCAGGAGCGCGTGCAAGCCGGGCAGGCGGTCCACCTA
GACCACAGCCCCCTCGGGAGCACCCACCTCTGTGTGTGATGTAGCTTTCTCTCCCTCAGCCTGCAAGGGTCCGA
TTTGCCATCGAAAAAGACAACCTCTACTTTTTTCTTTTGTATTTTGATAAACAAGCTGGAGCTGTAAAT
TATCTTGGGGAACCTCAGAACTGGTCTATTTGGTGTGCTAGGAACCTCTTACTGCTTTCAATACACGATTAGTA
ATCAACTGTTTTGTATACTTGTTCAGTTTTTCATTTGACAAACAAGCACTGTAATTATAGCTATTAGAATAAA
ATCTCTTAACCTATT

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FIGURE 24

MGNIFANLFKGLFGKKEMRILMVGLDAAGKTTILYKLLGEIVTTIPTIGFNVETVEYKNISFTVWDVGGQDKIR
PLWRHYFQNTQGLIFVVDSDNRERVNEAREELMRMLAEDEL RDAVLLVFANKQDLPNAMNAEITDKLGLHSLRH
RNWYIQATCATSGDGLYEGLDWLSNQLRNQK

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FIGURE 25

CGCGCCGGGAACAGCCAGTCGGTGCCTAACGCGAGTGTATCTCGAGAGAGAAGCGATCAACAGCTGCCGGTCTGC
GCCTGCGCGGCGACGGGGCGTGGCCGCGGCGAGTGGGGCCAAGGAGGCAGCCGGGAGCGGGGCGCAGGTGTTA
CTGGTTGCGTCGGGTACAGTGGGCGCGCAGCAGACCGCGGTGCAGCCCGTTTCGCTCACACAAAGCCCAGACGCGG
AGAAAATGGCGGCAGGGGTGGAAGCGGCGGCGAGGTGGCGGCGACGGAGATCAAAATGGAGGAAGAGAGCGGCG
CGCCCGCGTGGCGAGCGGCAACGGGGCTCCGGGCCCTAAGGGTGAAGGAGAACGACCTGCTCAGAATGAGAAGA
GGAAGGAGAAAAACATAAAAAGAGGAGGCAATCGCTTTGAGCCATATGCCAATCCAACATAAAGATACAGAGCCT
TCATTACAAACATACCTTTTGTATGTGAAATGGCAGTCACTTAAAGACCTGGTTAAAGAAAAAGTTGGTGAGGTAA
CATACGTGGAGCTCTTAATGGACGCTGAAGGAAAGTCAAGGGGATGTGCTGTTGTTGAATTCAAGATGGAAGAGA
GCATGAAAAAAGTCGCGGAAGTCCTAAACAAGCATAGTCTGAGCGGAAGACCACTGAAAGTCAAAGAAGATCCTG
ATGGTGAACATGCCAGGAGAGCAATGCAAAAGGTGATGGCTACGACTGGTGGGATGGGTATGGGACCAGGTGGCC
CAGGAATGATTACTATCCCACCCAGTATCCTAAATAATCCCAACATCCCAATGAGATTATCCATGCATTACAGG
CTGGAAGACTTGGGAAGCACAGTATTTGTAGCAAACTGGATTATAAAGTTGGCTGGAAGAACTGAAGGAAGTAT
TTAGTATGGCTGGTGGTGGTCCGAGCAGACATTCTTGAAGATAAAGATGGAAGAAAGTCGTGGAATAGGCACTG
TTACTTTTGAACAGTCCATTGAAGCTGTGCAAGCTATATCTATGTTCAATGGCCAGCTGCTATTTGATAGACCAA
TGACGCTCAAGATGGATGAGAGGGCCTTACCAAAAGGAGATTTCTTCCCTCTGAGCGTCCACAACAACTTCCCC
ATGGCCTTGGTGGTATTGGCATGGGGTTAGGACCAGGAGGGCAACCCATTGATGCCAATCACCTGAATAAAGGCA
TCGGAATGGGAAACATAGGTCCCGCAGGAATGGGAATGGAAGGCATAGGATTGGGAATAAATAAATGGGAGGAA
TGGAGGGGCCCTTTGGTGGTGGTATGGAACATGGGTGCTTGGATCTGGGATGAACATGGGCAGGATAAATG
AAATCCTAAGTAATGCACTGAAGAGAGGAGAGATCATTGCAAGCAGGGAGGAGGTGGAGGTGGAGGAAGCGTCC
CTGGGATCGAGAGGATGGTCTGGCATTGACCGCTCGGGGGTGCCGGCATGGAGCGCATGGGCGCGGGCCTGG
GCCACGGCATGGATCGCGTGGGCTCCGAGATCGAGCGCATGGGCTGGTCTGATGGACCGCATGGGCTCCGTGGAGC
GCATGGGCTCCGGCATTGAGCGCATGGGCCCGCTGGGCTCGACCACATGGCCTCCAGCATTGAGCGCATGGGCC
AGACCATGGAGCGCATTGGCTCTGGCGTGGAGCGCATGGGTGCCGGCATGGGCTTCGGCCTTGAGCGCATGGCCG
CTCCCATCGACCGTGTGGGCCAGACCATTGAGCGCATGGGCTCTGGCGTGGAGCGCATGGGCCCTGCCATCGAGC
GCATGGGCTGAGCATGGAGCGCATGGTGGCCGAGGTATGGGAGCTGGCCTGGAGCGCATGGGCCCCGTGATGG
ATCGCATGGCCACCGGCTGGAGCGCATGGGCGCCAACAATCTGGAGCGGATGGGCTGGAGCGCATGGGCGCCA
ACAGCCTCGAGCGCATGGGCTGGAGCGCATGGGTGCCAACAGCCTCGAGCGCATGGGCCCGCCATGGGCCCGG
CCCTGGGCGCTGGCATTGAGCGCATGGGCTGGCCATGGGTGGCGGTGGCGGTGCCAGCTTTGACCGTGCCATCG
AGATGGAGCGTGGCAACTTCGGAGGAAGCTTCGCAGGTTCTTTGGTGGAGCTGGAGGCCATGCTCTGGGGTGG
CCAGGAAGGCCTGCCAGATATTTGTGAGAAATCTGCCATTTCGATTTCACATGGAAGATGCTAAAGGACAAATTCA
ACGAGTGGGCCACGTGCTGTACGCCGACATCAAGATGGAGAATGGGAAGTCCAAGGGGTGTGGTGTGGTTAAGT
TCGAGTGGCCAGAGGTGGCCGAGAGAGCCTGCCGGATGATGAATGGCATGAAGCTGAGTGGCCGAGAGATTGACG
TTGCAATTGATAGAAACGCTTAAGCAGTTGCCTTTTTTAAACATCGATACGAGACCTCTGAATTTGTATTTTTTC
TTGTTAACCATTTTAATTTGTTGGCTGGATGTATAAAGATGTTTAAAAAATTTCAGTTGCTTTTTTGGGGTAATTTG
AATTACTTTTTTAATGACTGGGGTTCCATTTGACTGTTGCATTGAGATTGCAATGTGCGCAATTTTTTTGTAG
TTGTGGCATCTTGTGACATCGAATATGACTTTGATAATAAATACCGGTTCTTGAAAAAATAAAAAAAAAAAAAA
AAA

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FIGURE 26

MAAGVEAAAEVAATEIKMEEESGAPGVPSGNGAPGPKGEGERPAQNEKRKEKNIKRGGNRFEPYANPTKRYRAFI
TNIPFDVKWQSLKDLVKEKVGEVTYVELLMDAEGKSRGCAVVEFKMEESMKKAAEVLNKHSLSGRPLKVKEDPDG
EHARRAMQKVMATTGGMGMPGGPGMITIPPSILNNPNIPNEIIHALQAGRLGSTVVFVANLDYKVGWKKLKEVFS
MAGVVVRADILEDKDGKSRGIGTVTFEQSIEAVQAISMFNQQLLFDRPMHVKMDERALPKGDFPPPERPQQLPHG
LGGIGMGLGPGGQPIDANHLNKGIGMGNIGPAGMGMEGIGFGINKMGMEGPFGGGMENMGRFGSGMNMGRINEI
LSNALKRGEIIAKQGGGGGGGSGVPIERMGPIDRLGGAGMERMGAGLGHGMDRVGSEIERMGLVMDRMGSVERM
GSGIERMGPLGLDHMASSIERMGQTMERIGSGVERMGAGMGFGLERMAAPIDRVGQTIERMGSVERMGPAIERM
GLSMERMVPAGMGAGLERMGPMVMDRMTGLERMGANNLERMGANSLERMGLERMGANSLERMGPAMGPAL
GAGIERMGLAMGGGGGASFDRAIEMERGNFGGSFAGSFGGAGGHAPGVARKACQIFVRNLPDFTWKMLKDKFNE
CGHVLYADIKMENGSKGCGVVKFESPEVAERACRMNGMKLSGREIDVRIDRNA

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FIGURE 27

CGGCGCCATTAAAGCGAGGAGGAGGCGAGAGCGGCCGCCCTGGTGCTTATTCTTTTTTAGTGACGGGAGAGA
GCGGGAGTGTGCGCCGCGAGAGTGGGAGGCGAAGGGGCGAGGCCAGGGAGAGGCGCAGGAGCCTTTGCAGCCA
CGCGCGCGCCTTCCCTGTCTTGTGTGCTTCGCGAGGTAGAGCGGGCGCGGCGAGCGCGGGGATTACTTTGTGTC
TAGTTTCGGTTCGCGGCAGGCGGGTGTAGTCTCGGCGGCAGCGGCGGAGACACTAGCACTATGTCGGAGGAGCAG
TTCGGCGGGGACGGGGCGGCGGCAACGGCGGCGGTAGGCGGCTCGGCGGGCGAGCAGGAGGGAGCCATG
GTGGCGGCGACACAGGGGCGAGCGGCGGCGGAAGCGGAGCCGGGACCGGGGGCGGAACCGCGTCTGGAGGC
ACCGAAGGGGGCAGCGCCGAGTCGGAGGGGGCGAAGATTGACGCCAGTAAGAACGAGGAGGATGAAGGCCATTCA
AACTCCTCCCCACGACACTCTGAAGCAGCGACGGCACAGCGGGAAGAATGGAAAATGTTTATAGGAGGCCTTAGC
TGGGACACTACAAAGAAAGATCTGAAGGACTACTTTTCCAAATTTGGTGAAGTTGTAGACTGCACTCTGAAGTTA
GATCCTATCACAGGGCGATCAAGGGGTTTTGGCTTTGTGCTATTTAAAGAATCGGAGAGTGTAGATAAGGTCATG
GATCAAAAAGAACATAAATTGAATGGGAAGGTGATTGATCCTAAAAGGGCCAAAGCCATGAAAACAAAAGAGCCG
GTTAAAAAATTTTTGTTGGTGGCCTTTCTCCAGATACACTGAAGAGAAAAAAGGGAGTACTTTGGTGGTTTT
GGTGAGGTGGAATCCATAGAGCTCCCCATGGACAACAAGACCAATAAGAGGCGTGGGTTCTGCTTTATTACCTTT
AAGGAAGAAGAACCAGTGAAGAAGATAATGAAAAAGAAATACCACAATGTTGGTCTTAGTAAATGTGAAATAAAA
GTAGCCATGTGCAAGGAACAATATCAGCAACAGCAACAGTGGGGATCTAGAGGAGGATTTGCAGGAAGAGCTCGT
GGAAGAGGTGGTGGCCCCAGTCAAAACTGGAACCGAGGATATAGTAATATTGGAATCAAGGCTATGGCAACTAT
GGATATAACAGCCAAGGTTACGGTGGTTATGGAGGATATGACTACACTGGTTACAACAACACTATGGATATGGT
GATTATAGCAACCAGCAGAGTGGTTATGGGAAGGTATCCAGGCGAGGTGGTCAATAAATAGCTACAAACCATAC
TAAATTATTCCATTTGCAACTTATCCCCAACAGGTGGTGAAGCAGTATTTTCCAATTTGAAGATTCATTTGAAGG
TGGCTCCTGCCACCTGCTAATAGCAGTTCAAACATAAATTTTTGTATCAAGTCCCTGAATGGAAGTATGACGTTG
GGTCCCTCTGAAGTTTAAATCTGAGTTCTCATTAAGAAATTTGCTTTCAATTGTTTTATTCTTAATTGCTATG
CTTCAGAATCAATTTGTGTGTTATGCCCTTTCCCCAGTATTGTAGAGCAAGTCTTGTTGTTAAAAGCCCAGTG
ACAGTGTGATGATGTAGTAGTCTTACTGGTTTTTAAATAAATCCTTTTGTATAAAAAATGATTGGCTCTTTTA
TCATCAGAATAGGAAAAATTGTCATGGATTCAAGTTATTAAAAGCATAAGTTTGGGAAGACAGGCTTGCCGAAATT
GAGGACATGATTAAAAATTGCAGTGAAGTTTGAATGTTTTTAGCAAAATCTAATTTTGCATAATGTGTCCTCC
CTGTCCAAATTGGGAATGACTTAATGTCAATTTGTTTGGTTGTTTTAATAATACTTCCTTATGTAGCCATTA
AGATTTATATGAATATTTTCCCAAATGCCAGTTTTTGCTTAATATGTATTGTGCTTTTGAACAAATCTGGAT
AAATGTGCAAAAGTACCCCTTTGCACAGATAGTTAATGTTTTATGCTTCCATTAAATAAAAAGGACTTAAATCT
GTTAATTATAATAGAAATGCGGCTAGTTCAGAGAGATTTTATAGGCTGTGGTGGACTTCATAGATGAATTCAAGT
GTTGAGGGAGGATTAAAGAAAT

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FIGURE 28

MSEEQFGDGAAAAATAAVGGSAGEQEGAMVAATQGAAAAAGSGAGTGGGTASGGTEGGSASESEGAKIDASKNEE
DEGHSNSSPRHSEAATAQREEWKMF IGGLSWDTTKDLKDYFSKFGEVVDCTLKLDPI TGRSRGFGFVLFKESES
VDKVMQKEHKLNGKVIDPKRAKAMKTKEPVKKIFVGGLSPDTPEEKIREYFGGFGEVESIELPMDNKTNKRRGF
CFITFKEEEFVKKIMEKKYHNVLGSKCEIKVAMSKEQYQQQQQWGSRGGFAGRARGRGGGPSQÑWNQGYSNYWNQ
GYGNYGYNSQGYGGYGGYDYTGYNYYGYGDYSNQQSGYGKVSRRGGHQN SYKPY

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FIGURE 29

GTACTATCCTCCTTACTTTTGGGTGCGGGCCCTCCGGGAAGATGGCGGCCGTGCAGGCGGCCGAGGTGAAAGTGGA
TGGCAGCGAGCCGAAACTGAGCAAGAATGAGCTGAAGAGACGCCCTGAAAGCTGAGAAGAAAGTAGCAGAGAAGGA
GGCCAAACAGAAAGAGCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACACCACTGATAA
TGGTGTGGGTCTTGAGGAAGAGAGCGTGGACCCAAATCAATACTACAAAATCCGCAGTCAAGCAATTCATCAGCT
GAAGGTCAATGGGGAAGACCCATACCCACACAAGTTCCATGTAGACATCTCACTCACTGACTTCATCCAAAAATA
TAGTCACCTGCAGCCTGGGGATCACCTGACTGACATCACCTTAAAGGTGGCAGGTAGGATCCATGCCAAAAGAGC
TTCTGGGGGAAAGCTCATCTTCTATGATCTTCGAGGAGAGGGGGTGAAGTTGCAAGTCATGGCCAATTCCAGAAA
TTATAAATCAGAAGAAGAATTTATTCATATTAATAACAAACTGCGTCGGGGAGACATAATTGGAGTTCAGGGGAA
TCCTGGTAAAACCAAGAAGGGTGAGCTGAGCATCATCCGTATGAGATCACACTGCTGTCTCCCTGTTTGCATAT
GTTACCTCATCTTCACTTTGGGCTCAAAGACAAGGAAACAAGGTATCGCCAGAGATACTTGGACTTGATCCTGAA
TGACTTTGTGAGGCAGAAATTTATCATCCGCTCTAAGATCATCACATATATAAGAAGTTTCTTAGATGAGCTGGG
ATTCTAGAGATTGAAACTCCCATGATGAACATCATCCAGGGGGAGCCGTGGCCAAGCCTTTCATCACTTATCA
CAACGAGCTGGACATGAACCTTATATATGAGAATTGCTCCAGAACTCTATCATAAGATGCTTGTGGTTGGTGGCAT
CGACCGGGTTTATGAAATTGGACGCCAGTTCCGGAATGAGGGGATTGATTGACGCACAATCCTGAGTTCACCAC
CTGTGAGTTCTACATGGCCTATGCAGACTATCACGATCTCATGGAAATCACGGAGAAGATGGTTTCAGGGATGGT
GAAGCATATTACAGGCAGTTACAAGGTCACCTACCACCCAGATGGCCCAGAGGGCCAAGCCTACGATGTTGACTT
CACCCACCCCTTCCGGCGAATCAACATGGTAGAAGAGCTTGAGAAAGCCCTGGGGATGAAGCTGCCAGAAACGAA
CCTCTTTGAAACTGAAGAAACTCGCAAAATTCCTTGATGATATCTGTGTGGCAAAAGCTGTTGAATGCCCTCCACC
TCGGACCACAGCCAGGCTCCTTGACAAGCTTGTGGGGAGTTTCTGGAAGTGACTTGATCAATCCTACATTTCAT
CTGTGATCACCCACAGATAATGAGCCCTTTGGCTAAATGGCACCGCTCTAAAGAGGGTCTGACTGAGCGCTTTGA
GCTGTTTGTTCATGAAGAAAGAGATATGCAATGCGTATACTGAGCTGAATGATCCCATGCGGCAGCGGCAGCTTTT
TGAAGAACAGGCCAAGGCCAAGGCTGCAGGTGATGATGAGGCCATGTTTCATAGATGAAAATTCGTACTGCCCT
GGAATATGGGCTGCCCCCACAGCTGGCTGGGGCATGGGCATTGATCGAGTCGCCATGTTTCTCACGGACTCCAA
CAACATCAAGGAAGTACTTCTGTTTCCCTGCCATGAAACCCGAAGACAAGAAGGAGAATGTAGCAACCACTGATAC
ACTGGAAGCACAACAGTTGGCACTTCTGTCTAGAAAATAATAATTGCAAGTTGTATAACTCAGGCGTCTTTGCA
TTTCTGCGAAAGATCAAGGTCTGCAAGGGAATTCTTGTGTGCTGCTTTCCATTTGACACCGCAGTTCTGTTCAGC
CATCAGAAGAGAGACAAGGAATTAAAAATTTCTTTTAAATCCTGTTA

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FIGURE 30

MAAVQAAEVKVDGSEPKLSKNELKRRLKAEKKVAEKEAKQKELSEKQLSQATAAATNHTTNGVGPPEESVDPNQ
YYKIRSQAIHQKLVNGEDPYPHKFHVDISLTDFIQKYSHLQPGDHLTDITLKVAGRIHAKRASGGKLIFYDLRGE
GVKLQVMANSRNYKSEEEFIHINNKLRRGDIIGVQGNPGTKKKGELSIIPYEITLLSPCLHMLPHLHFLGLDKKET
RVRQRYLDLILNDFVRQKFIIRSKIITYIRSFLDELGFLEIETPMNIIIPGGAVAKPFITYHNELODMNLYMRIAP
ELYHKMLVVGGIDRVYEIGRQFRNEGIDLTHNPEFTTCEFYMAYADYHDLMEITEKMSVGMVKHITGSYKVTYHP
DGPEGQAYDVDFTPPFRINMVEELEKALGMKLPETNLFETEETRILDDICVAKAVECPPPRTTARLLDKLVGE
FLEVTCINPTFICDHPQIMSPKAKWHRSEGLTERFELFVMKKEICNAYTELNDPMRQQLFEEQAKAKAAGDDE
AMFIDENFCTALEYGLPPTAGWGMGIDRVAMFLTDSNNIKEVLLFPAMKPEDKKENVATTDTLESTTVGTSV

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FIGURE 31

GGGGAGAGAAGGCCCGGAGGGGCTCTGCGTTCTGTAGTGGCGCTGCTTGGGCCCGTGGCGGATTGTAAGCTGCTG
GTTTTGCGGCTGGGAAGAGCGGCGAGAGGGTTTCGGCATTTCGTCGGGATCCCCGCAAGGATGAGTGTGCTGCCAG
AGAGTCTCACCCGCATGGGGTGAAGCGTTTCAGCCTCCCCAGACGACGATCTGGGATCTAGCAATTGGGAGGCAGC
AGACTTGGGTAATGAAGAGAGAAAACAAAAGTTCTTGAGACTTATGGGTGCAGGAAAGAAAGAACATACTGGTCTG
TCTTGTTATAGGAGATCACAAATCAACATCTCACTTCCGAACCGGGGAAGAAGACAAGAAAATTAATGAAGAAGT
GGAGTCTCAATATCAGCAAAGTATGGACAGTAAATTATCAGGAAGATATCGGCGACATTGTGGACTTGGCTTCAG
TGAGGTAGAAGACCATGATGGAGAAGGTGATGTGGCTGGAGATGATGATGATGACGATGATGATTCACCTGATCC
TGAAAGTCCAGATGATTCTGAAAGCGATTTCAGAGTCAGAGAAAGAAGAATCTGCTGAAGAAGTCCAAGCTGCTGA
GCACCTGATGAAGTGGAGGATCCCCAAAAACAAAAAGATGCAAAAGCAATTATAAAATGATGTTTGTAAATC
CAGTGGTTCATAACTCCCAAACGCTTAGTCTTTGTATTAAAAAGTAAGCCTTATTGTTACAATGCACAGTGGAGGA
CTGCTTATAGAGCACAGACCTTTGTATTATAATTTTTAAAAAGGCCCTTTTAAATAATTACAAAGAGTGTGTGCT
TTCAAATGCCATGGGTACACTTTTTATGGGCATGACTATAACCATTTTTGTAAAGAGTAAGAGTTGTATAAAATA
AGAAATAAATACAGTACTCAACTTCCTTTTCATATTAGCATCATCAACCCTCTAATTCACCTTATGGGGGAAATGC
TTCTTTTGTGTGTAGCTATTTTATCATTTCCTTCATATTTTCTCTTATAAAAATGTATTTGATACTGTGA
TATGTTACGAAAAGTATTCTTTAATTATTCTTTGTTATAGTAGAGCTGTTTCATTATGGATATTTCTGCTGCCAG
TCACAACTCTAAATTAATTTTGGCAAAGATTGGGTACTTAGTTGCCTGTTACTGAGTTAGCTCTACTCTTTTGGA
CCAAAGCAACATGAGAGCAAGTACTTTTCACACTTGTTAAGATGGAGTTATAACTGTCATACATTTGGAATATTA
TGATCCCAAGTAGTCTTTTATAATTTGGATTGTATCGTATGTTAGATTTTGTATAAAATTTGGCCAATTTTAC
AGAAGAAATCTCTGATCATTTAGTTCTATCTATTTAGAAATATGTAAAGTGGATTTTTTTTTAAGTAATATGT
GACCAAAGTTAATTTTGTCCCAAAGGTCTAAATAAAGAGCAGTTCCACAAAAAAAAAAAAAAAAAAAAAAAAA
AAAA

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FIGURE 32

MSAARESHPHGVKRSASPDDDLGSSNWEAADLGNEERKQKFLRLMGAGKKEHTGRLVIGDHKSTSHFRTGEEDKK
INEELESQYQQSMDSKLSGRYRRHCGLGFSEVEDHDGEGDVAGDDDDDDDDSPDPESPDDSESDSESEKEESAEE
LQAAEHPDEVEDPKNKKDAKSNYKMMFVKSSGS

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FIGURE 33

GCGGTCAGCTATTGACACTTCCTGGTGGGATCCGAGTGAGGCGACGGGGTAGGGGTTGGCGCTCAGGCGGCGACC
ATGGCGTATCACGGCCTCACTGTGCCTCTCATTGTGATGAGCGTGTTCCTGGGGCTTCGTCGGCTTCTTGGTGCCT
TGGTTCATCCCTAAGGGTCCTAACCGGGGAGTTATCATTACCATGTTGGTGACCTGTTTCAGTTTGCTGCTATCTC
TTTTGGCTGATTGCAATTCTGGCCCACTCAACCCTCTCTTTGGACCGCAATTGAAAAATGAAACCATCTGGTAT
CTGAAGTATCATTGGCCTTGAGGAAAGAAGACATGCTCTACAGTGCTCAGTCTTTGAGGTCACGAGAAGAGAATGC
CTTCTAGATGCAAAATCACCTCCAAACCAGACCACCTTTTCTTGACTTGCTGTTTTGGCCATTAGCTGCCTTAAA
CGTTAACAGCACATTTGAATGCCTTATTCTACAATGCAGCGTGTTTTCTTTGCCTTTTTTGCACTTTGGTGAAT
TACGTGCCTCCATAACCTGAAGTGTGCCGACTCCACAAAACGATTATGTACTCTTCTGAGATAGAAGATGCTGTT
CTTCTGAGAGATACGTTACTCTCTCCTTGAATCTGTGGATTTGAAGATGGCTCCTGCCTTCTCACGTGGGAATC
AGTGAAGTGTITAGAACTGCTGCAAGACAAACAAGACTCCAGTGGGGTGGTCAGTAGGAGAGCACGTTTCAGAGG
GAAGAGCCATCTCAACAGAATCGCACCAAATACTTTTCAGGATGAATTTCTTCTTTCTGCCATCTTTTGAAT
AAATATTTTCTCCTTTCTATGGA

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FIGURE 34

MAYHGLTVPLIVMSVFWGFVGFVLPWFIPKGPNRGVIIITMLVTCSVCCYLFWLIAILAQLNPLFGPQLKNETIWI
LKYHWP

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FIGURE 35

AGGAGCCAGGAAGAGAGCTGTGACCAGCAGCGTCCCTTATTCGCTTGGCCTTGGTTCTGTTTGCAGTGGCTACA
GCAGGGCACTGGCCCTACTGTACCGCCACCTACACAAAGACCCTATCTCTGAGCGCTGCAGCCTACTGTTTCAG
CCCCAGGTTTGTAGGATGGATGCCCTGGACGCTTCGAAGCTACTGGATGAGGAGCTGTATTCAAGACAGCTGTATG
TGCTGGGCTCACCTGCCATGCAGAGGATTAGGGAGCCAGGGTCTGGTGTGAGGCCTGCAGGGCCTGGGGGCGG
AGGTGGCCAAGAAGCTTGGTTCTGATGGGTGTGGGCAGCCTCACTCTGCATGATCCCCACCCACCTGCTGGTCCG
ACCTGGCTGCCCAGTTTCTCCTCTCAGAGCAGGACTTGGAAAGGAGCAGAGCCGAGGCCTCTCAAGAGCTCTTGG
CTCAGCTCAACAGAGCTGTCCAGGTCGTGTCACACGGGTGACATCACTGAGGACCTGCTGTTGGACTTCCAGG
TGGTGGTGCTGACTGCTGCAAAGCTGGAGGAGCAGCTGAAGGTGGGCACCTTGTGTGATGAGGACTTCACTGTGAGGACC
TTCTGGCGGCTGACACCGGGGCTCGTGGGGCAGTTGTTCTGTGACTTGGTGAGGACTTCACTGTGAGGACC
CCACAGAGGCAGAACCCCTGACAGCTGCCATCCAGCACATCTCCAGGGCTCCCCCTGGCATTCTCACTCTGAGGA
AAGGGGCAATACCCACTACTTCCGTGATGGAGACTTGGTGACTTTCTCGGGAATTGAGGGAATGGTTGAGCTCA
ACGACTGTGATCCCCGGTCTATCCACGTGCGGGAGGATGGGTCCCTGGAGATTGGAGACACAACAATTTCTCTC
GGTACTTGGCTGGTGGGGCTATCACTGAAGTCAAGAGACCCAAAGCTGTGAGACATAAGTCCCTGGACACAGCCC
TGCTCCAGCCCCATGTGGTGGCCAGAGCTCCAGGAAGTTACCATGCCCCACTGCCTGCATCAGGCCTTCTGTG
CACTGCACAAGTTCCAGCACTCCATGGCCGGCCACCCAGCCCTGGGATCCTGTTGATGCAGAGACTGTGGTGG
GCCTGGCCCGGGACCTGGAACTGAAGCGGACAGAGGAAGGCCACTGGAAGAGCCACTGGATGAGGCCCTAG
TGCGGACAGTCCGCCAAGCAGTGCAAGGTGTCTTGAGCCTATGGTGGCATGCTGGGTGAGTGTGCCCAGGAA
GTGCTGAAGGCAATCTCCAGAAGTTTCATGCCTCTGGACCAGTGGCTTTACTTTGATGCCCTCGATTGTCTTCCGG
AAGATGGGGAGCTCCTTCCAGTCTCTGAGGACTGTGCCCTGAGAGGCAGCCGCTATGATGGGCAATTCAGTGT
TTGGGGCTGGTTTTCAGGAGAACTGAGACGCCAGCACTACCTCCTGGTGGGCGCTGGTGCCATTGGTTGTGAGC
TGCTCAAAGTCTTTGCCCTAGTGGGACTGGGGCCGGGAACAGCGGGGCTTGACTGTTGTTGACATGGACCACA
TAGAGCGCTCCAATCTCAGCCGTGAGTTCTCTTCAGGTCCCAGGACGTTGGTAGACCCAAGGCAGAGGTGGCTG
CAGCAGCTGCCCCGGGCTGAACCCAGACTTACAGGTGATCCCGCTACCTACCCACTGGATCCCACCACAGAGC
ACATCTAIGGGGATAACTTTTTCTCCCGTGTGGATGGTGTGGCTGCTGCCCTGGACAGTTTCCAGGCCCGGCGCT
ATGTGGCTGCTCGTTGCACCCACTATCTGAAGCCACTGCTGGAGGCAGGCACATCGGGCAGCTGGGGCAGTGCTA
CAGTATTCTGACCATGTGACTGAGGCCTACAGAGCCCTGCCTCAGCTGCAGCTTCTGAGGATGCCCCCTACC
CTGTCTGTACCGTGCGGTACTTCCCTAGCACAGCCGAGCACACCCCTGCAGTGGGCCCGCATGAGTTTGAAGAAC
TCTTCCGACTGTCTGCAGAGACCATCAACCACCACCAACAGGCACACACCTCCCTGGCAGACATGGATGAGCCAC
AGACACTCACCTTACTGAAGCCAGTGCTTGGGGTCTGAGAGTGGTCCACAGAACTGGCAAGACTGTGTGGCGT
GGGCTCTTGGCCACTGGAACTCTGCTTTTATTATGGCATCAAACAGCTGCTGAGGCCTTCCCACCTAATAAAG
TGCTTGAGGATGGAACTCCCTTCTGGTCAGGTCCCAAACAGTGTCCCAGCCCTTGGAGTTTGACACCAACCAAG
ACACACACCTCCTCTACGTACTGGCAGCTGCCAACCTGTATGCCCAGATGCATGGGCTGCCTGGCTCACAGGACT
GGACTGCACTCAGGGAGCTGCTGAAGCTGCTGCCACAGCCTGACCCCAACAGATGGCCCCCATCTTTGCTAGTA
ATCTAGAGCTGGCTTCGGCTTCTGCTGAGTTTGGCCCTGAGCAGCAGAAGGAAGTGAACAAAGCCCTGGAAGTCT
GGAGTGTGGGCCCTCCCCGAAGCCTCTGATGTTTGAAGGATGATGACAGCAACTTCCATGTGGACTTTGTGG
TAGCGGCAGCTAGCCTGAGATGTCAGAACTACGGGATTCCACCGGTCAACCGTGCCAGAGCAAGCGAATTGTGG
GCCAGATTATCCCAGCCATTGCCACCACTACAGCAGCTGTGGCAGGCCTGTTGGGCTGGAGCTGTATAAGGTGG
TGAGTGGGCCACGGCCTCGTAGTGCTTTTCGCCACAGCTACCTACATCTGGCTGAAAACCTACCTCATCCGCTATA
TGCCTTTTGCCCCAGCCATCCAGACGTTCCATCACCTGAAGTGGACCTCTTGGGACCGTCTGAAGGTACCAGCTG
GGCAGCCTGAGAGGACCCCTGGAGTCGCTGCTGGCTCATCTCAGGAGCAGCACGGGTTGAGGGTGAGGATCCTGC
TGCACGGCTCAGCCCTGCTCTATGCGGCCGATGGTCACCTGAAAAGCAGGCCCAGCACCTGCCCTCAGGGTGA
CAGAACTGGTTACGAGCTGACAGGCCAGGCACCTGCTCCTGGGCAGCGGGTGTGGTGCTAGAGCTGAGCTGTG
AGGGTGACGACGAGGACACTGCCTTCCCACCTCTGCACTATGAGCTGTGACAAGGCAGCCACCTGTACCTAGC
TCAATGGAGCCCCGGATCCCAAGCCCTGCATTGTAAGCCACAGTAGGCACTCAATAATTGCTGTAAAGGAAG
G

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FIGURE 36

MDALDASKLLDEELYSRQLYVLGSPAMQRIQGARVLVSGLQGLGAEVAKNLVLMGVGSLTLHDPHPTCWSDLAAQ
FLLSEQDLERSRAEASQELLAQLNRAVQVVVHTGDITEDLLLDQVVLTAAKLEEQLKVGTLCHKHGVCFLAAD
TRGLVGQLFCDFGEDFTVQDPTEAEPLTAAIQHISQSGPGILTLRKGANHYFRDGLVTFSGIEGMVELNDCDP
RSIHVREDGSLEIGDTTTTFSRYLRGGAITEVKRPKTVRHKS LDTALLQPHVVAQSSQEVHHAHCLHQAF CALHKF
QHLHGRPPQPWDPVDAETVVGLARDLEPLKRTEEEPLEEPLDEALVRTVALSSARCLEPMVACWVSSCPGSAEGN
LQKFMPLDQWLYFDALDCLPEDGELLPSPEDCALRGSRYDGQIAVFGAGFQEKLRQHYLLVGAGAIGCELLKVF
ALVGLGAGNSGGLTVVDMDHIERSNLSRQFLFRSQDVGRPKAEVAAAAAGLNPDLQVIPLTYPLDPTTEHIYGD
NFFSRVDGVAAALDSFQARRYVAARCTHYLKPLLEAGTSGTWGSATVFMPHVTEAYRAPASAAAASEDAPYPVCTV
RYFPSTAHTLQWARHEFEELFRLSAETINHHQQAHTSLADMDEPQTLTLLKPVLGVLVRVQNWQDCVAWALGH
WKLCFHYGIKQLLRHFPPNKVLEDGTPFWSGPKQCPQPLEFDTNQDTHLLYVLAAANLYAQMHGLPGSQDWTALR
ELLKLLPQPDQPQMAPIFASNLELASASAEFGPEQQKELNKALEVWSVGPPKPLMFEKDDDSNFHVDFVVAAS
LRCQNYGIPPVNRAQSKRIVGQIIPAIATTTAAVAGLLGLELYKVVSGPRPRSAFRHSYLHLAENYLIRYMPFAP
AIQTFHHLKWTSDRLKVPAGQPRTLLESLLAHLQEQLHGLRVRILLHGSALLYAAGWSPEKQAQHLPLRVTELQ
QLTGQAPAPGQRVLVLELSCEGDDEDTAFPPPHYEL

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FIGURE 37

GACAGCCACGAAGATCCTACCAAAATGAAGCGCTTCCTCTTCCTCCTACTCACCATCAGCCTCCTGGTTATGGTA
CAGATACAAACTGGACTCTCAGGACAAAACGACACCAGCCAAACCAGCAGCCCCCTCAGCATCCAGCAGCATGAGC
GGAGGCATTTTCCTTTTCTTCGTGGCCAATGCCATAATCCACCTCTTCTGCTTCAGTTGAGGTGACACGTCTCAG
CCTTAGCCCTGTGCCCCCTGAAACAGCTGCCACCATCACTCGCAAGAGAATCCCCCTCCATCTTTGGGAGGGGTG
ATGCCAGACATCACCAGGTTGTAGAAGTTGACAGGCAGTGCCATGGGGGCAACAGCCAAAATAGGGGGGTAATGA
TGTAGGGGCCAAGCAGTGCCCAGCTGGGGGAGAATAAAGTTACCCTTGCTACTGCA

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FIGURE 38

MKRFLFLLLTISLLVMVQIQTGLSGQNDTSQTSSPSASSSMSGGIFLFFVANAIHLCFS

FIGURE 39

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAAATTTTTTGATAAACAGTCTATA
TTTTATTAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCACACT
GCCAGTGAAAAAGCTACGTCTTTACTGCATAAATTAGAGGAAGCAATTCGGAACAACGGAACCTTCAAACATA
AATACTGAATTATCGAACACTTGCCAGGCACTTCAGCAGAAGACAAGGAACTGAAGAAGCTTTTTAGATGAGGA
ATTTCTCACTATGATTCCCTGTCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTG
CCACAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC
ACCTCTGCTGGATGCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCTGGAATCAACACCTTTCTCAGGTGT
AGCCAACCAATCCACACTCTGTGTGAAGGCCACATAAGGAGAAGTAAAGGATGGTGTGCTTTGGATGTAAAAAG
ACAACACAAGTGCCAGGCCCAAGTGCCCGCCAGCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA
TGACCAAGTATGGAAGAGAATGGTGTGAACGCGTGTGTCTGAGAGCCTGCTGCAGTCCAGGGGATATTCTCTC
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCTGAA
TATGGCTTCTTGTGACCTTGACAGAACTCGCTCTGTAAAGAAAGAGGAGGATACAAGATCAGCTTCTCCACGAT
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT
AAATCTGGAAGCCAAAGAGGAACCAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT
TTCCCTCTTCTGTAACTGTAACCGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA
GGTGGAGGCAGAAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT
TGAAGAGAGGTCCCCTGACTGGGCAGAGAAAAATTTGAAGAAAGAAATCACTAACTCTTTAAACTATTAGAGTC
TTTAACACCTCTGTGTGAAGATGACAACCGGCACAGGAAATCATTAGAAGCTGGAGAAGAGTATAAAGTTTCT
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTTAGTAA
AGCAGTTGAAGTGATGATTGAGCAGTAGAAAACTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA
ACTGAAACAGGTTCTTCTGCAGAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTA
ACGTTCACTTCTCTAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG
AAATGCAGGAATGGTGGCTGGGATGGAAAAATAATGATCGATTGAGTAGAAGGTCAAGCAGTTGGCGTATTTTGGG
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCTGGGCAGATGCTGAAGAAGA
AAAATGTGAACATAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTCAGTTTATGACACAATAGCTTCTGGGCAAC
AAATCTCAAGTCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTGATTGTACTGTTGCAGC
TTTGATGAGCTTCTCACAGGCCAATTATTCCAGAAGTCTGTGGATGCCGCTCCACACAGCAAGAGGACTCATG
GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCAAGTGTGACAGCAGGA
CATCTAATATATGGATCTTGATTTTTAAGTTTCAGTATCTGAACTTCGTAAATTAGTAACCTTTTAGCTGGGAAA
GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCTCTTTTGGCTTTATCTCCCC
AACTAAAATACAATGGG

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FIGURE 40

MESTPFGVANQIHTLCERPTYGEVKDGDALDVKRQHKCPGPTSGPSPGTNLSGCIRMNDPDSMEENGVERVCPES
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKS VNVROSENTSANEKEVEAEFLRLSLGFKCDW
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLSLTPLCEDDNQAQEI IKKLEKSIKFLSQCAARVASRAEMLGA
INQESRVSKAVEVMIQHVENLKRM YAKEHAELEELKQVLLQNERSFNPLEDDDDCQIKKRSASLNSKPSSLRRVT
IASLPRNIGNAGMVAGMENNDRFSRRSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTQQLFQKSVDA
APTQQEDSWTSLEHILWPFTRLRHNGPPPV

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FIGURE 41

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAAGTGGAGAACTATTAACCACCATTCTTCAGTGG
GCTGTGATTTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA
GACATTTTTGGCAGAGCATAGATGAAAATGGCAAGTTCCTGGCTTTCCTTCTGCTCAACTTTTCATGTCTCCCTC
TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCTGGCCATG
GTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG
AGTTCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAGGAAGTGAAGACAGGCAGAGTGCACCATAT
CGAGGGAGAACCTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCC
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAGCCCTGGTGGAGCTGAAGGTT
GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC
ACTGCTGGTACCCCCAACCCCAAATAAAGTGGAGCGACACCAAGGGAGAGAATCCCGGCTGTGGAAGCACCT
GTGGTTGCAGATGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA
TCCTGCATCATCAGAAATTCCTCCTCGGCCCTGGAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG
AGCGCCAGCCCTGGATCGCGGCCCTGGCAGGGACCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC
TTCTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACTCAAGTGGAGGAAAATCCAG
TACATGGCTCGTGGAGAGAAGTCTTTGGCCTATCATGAATGGAATGGCCCTCTTCAAACCTGCGGATGTGATT
CTGGATCCAGACACGCCAAACGCCATCCTCCTTGTCTTCTGAGGACCAGAGGAGTGTGCAGCGTGTGAAGAGCCG
CGGGATCTGCCAGACAACCCCTGAGAGATTGAATGGCGTTACTGTGTCTTGGCTGTGAAAACCTTCACATCAGGG
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG
AAAAAAGGTTGGGTCAAATGACACCGGAGAACGGATACTGGACTATGGGCCTGACTGATGGGAATAAGTATCGG
GCTCTCACTGAGCCCAGAACCAACCTGAACTTCTGAGCCTCTAGGAAAGTGGGGATCTTCTGGACTATGAG
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCGACGCGCTCTTCTCTGAG
CCTCTATATCCTGTTTTTCAGAATTTTGACCTTGGAGCCCACTGCCCTGACCATTTGCCCAATACCAAAGAAGTA
GAGAGTTCCCCCGATCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCCTGGAGCTGAGGTCTCCCCTTCTGCA
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTACTGATATTTCATTCCATTATTCATATGA
CAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAACAGAGAA
TTTAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAACACCTGTGCGG
TAGTCATATTTTGAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACTTACATAATTCATACAGTAATTTGT
GCAGTTGGGAGATGTTAGCCTTAGTCCCTGGCTAATTGCCTGTCTTTTCCAGCCTGATTTTTTTTCCACAGG
AAGAGCCCATGTAGCCCTGAGGTTTCTTCCCAGGACAGCTGCAGGGTAGAGATCATTTTAAAGTGTCTGTGGA
GTTGACATCCCTATTGACTCTTCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGCTCTGCAG
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT
GATAAATCATGGGGCACAGATATGTTCCCACCCAAACAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCC
TTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT
AAAAGAATTACAGGGATGTTTTTAATCCCACTATGGACTCAGTCTCCTGGAATAGGTCTGTCCACTCCTGGTCA
TTGGTGGATGTTAAACCCATATTCCTTTCAACTGCTGCCTGCTAGGGAAAAGTCTCCTCATTATCATCACTATT
ATTGCTCACCCTGTATCCCTCTACTTGGCAAGTGGTTGTCAAGTCTAGTTGTTCAATAAATGTGTTAATAAT
GAAAAA

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FIGURE 42

MKMASSLAFLLLNFHVSFLVQLLTPCSAQFSVLGPGSPILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDIFYEKALVELKVAALGSDL
HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS
LLGLEKTASISIA DPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEPRDLDPNP
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT
NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPKEVESSPDPD
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

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FIGURE 43A

CCGGGCTGCGCGGCGAGGCTGAGCCGGGGCCCGGCGCGGGGGCCGGGGCGGGCTGGCGCGGGCAGGAAGCGCCTC
GCGGACCCGGGGCCCGCCCCCGCCTCCCGCGCGCTCCGGGCTCCCGGCTCCCGGCGCGCCTCGCCCCATGCACT
CGCCGCGCGCGCAGCCCGCGCACGCCCCGATGCTCCTCGCGCGCGGGCGGCGCACCCCTTAGCGCCCGGGCC
GCCGCCGCCAGCCCCCGCGCTTCCAGACGCCCGCGCGGTGCCCGTGCCTGCTGTTGCTGCTGCTCCTGGGG
GCGGCGCGGGCCGGCGCCTGGAGATCCAGCGTCGGTTCCCTCGCCACGCCACCAACAACCTTCGCCCTGGAC
GGCGCGGGGGGACCGTGTACCTGGCGGCCGTCAACCGCCTCTATCAGCTGTGGGGCGCCAACCTGAGCCTGGAG
GCCGAGGCGGGCGTGGGCCCCGTGCCGACAGCCCGCTGTGTACGCTCCGACGCTGCCGAGGCCTCGTGCGAG
CACCCGCGGGCCTCACGGACAATAACAAGATCCTGCAGCTGGACCCCGGCCAGGGCCTGGTAGTCGTGTGC
GGGTCCATCTACAGGGCTTCTGCCAGCTGCGGCGCGGGGTAACATCTCGGCCGTGGCCGTGCGCTTCCCGCCC
GCCGCGCGCCCGCCGAGCCCGTACGGTGTTCGCCAGCATGCTGAACGTGGCGGCCAACACCCGAACGCGTCC
ACCGTGGGGCTAGTTCTGCCTCCCGCGCGGGCGCGGGGGCAGCCGCTGCTCGTGGGCGCCACGTACACCGGT
TACGGCAGTCTCTTCTCCCGCGCAACCGCAGCCTGGAGGACCACCGCTTCGAGAACACGCCCGAGATCGCCATC
CGCTCCCTGGACACGCGCGCGACCTGGCCAAGCTCTTACCTTCGACCTCAACCCCTCCGACGACAACATCCTC
AAGATCAAGCAGGGCGCCAAGGAGCAGCACAAGCTGGGCTTCGTGAGCGCCTTCCTGCACCCGTCCGACCCGCCG
CCGGGTGCACAGTCTACGCGTACCTGGCGCTCAACAGCGAGGCGCGCGCGGGCGACAAGGAGAGCCAGGCGCGG
AGCCTGCTGGCGCGCATCTGCCTGCCCCACGGCGCGCGGGCGAGCCAAGAAGCTACCGAGTCTACATCCAG
TTGGGCTTGAGTGCAGTGCAGGGCGGGCGGGGCCGCGGCGACCTCTACAGCCGCTGGTGTGCGTCTTCCAGCCCGG
GAGCGGCTCTTTGCTGTCTTCGAGCGGCCCCAGGGGTCCCCCGGGCCCGCGCTGCTCGGCGCGCACTCTGCGCC
TTCCGCTTCGCCGACGTGCGAGCCGCCATCCGAGCTGCGCGCACCGCCTGCTTCGTGGAACCGGCGCCCGACGTG
GTGGCGGTGCTCGACAGCGTGGTGCAGGGCACGGGACCGGCTGCGAGCGCAAGCTCAACATCCAGCTCCAGCCA
GAGCAGCTGGACTGTGGAGTGTCTACCTGCAGCACCCGCTGTCCATCCTGCAGCCCTGAAGGCCACGCCCGTG
TTCCGCGCCCCGGGCTCACCTCCGTGGCGTGGCCAGCGTCAACAATAACAGCGGTCTTCTGGGCACGGTC
AACGGGAGGCTTCTCAAGATCAACCTGAACGAGAGCATGCAAGTGGTGGAGAGGCGGGTGGTACTGTGGCCTAT
GGGGAGCCCGTGACCATGTATGCAAGTTTGAACAGCAGACTCCGTTTACCTTTACCTGATGACGTCCACACAG
ATGGCCAGGGTGAAGGTGCGCGCCTGCAACGTGCACTCCACCTGTGGGGACTGCGTGGGTGCGGCGGACGCCTAC
TGCGGCTGGTGTGCCCTGGAGACGCGGTGCACCTTGACGAGGACTGCACCAATTCCAGCCAGCAGCATTTCTGG
ACAGTGCCAGCGAGGGCCCCAGCGCTGTCTGCCATGACCGTCTGCCTTCCGAGATCGATGTGCGCCAGGAG
TACCCAGGCATGATCCTGCAGATCTCGGGCAGCCTGCCAGCCTCAGTGGCATGGAGATGGCCTGTGACTATGGG
AACAACATCCGCACTGTGGCTCGGGTCCCAGGCCCTGCCTTTGGTACCAGATTGCCTACTGCAACCTCCTGCCG
AGGGACCAGTTTCCGCCCTTCCCCCAACCAGGACCACGTGACTGTTGAGATGTCTGTGAGGGTCAATGGGCGG
AACATCGTCAAGGCCAATTTACCATCTACGACTGCAGCCGCACTGCACAAGTGTACCCCCACACAGCCTGTACC
AGCTGCTGTGCGCACAGTGGCCTGTTTCTGGTGCAGCCAGCAGCACTCCTGTGTTTCAACCACTCTCGGTGC
GAGGCTCACAAACCCACAGAGCCCTCAGGACTGCCCCCGGACCCTGCTCTACCCCTGGCACCCGTGCCTACG
GGTGGTCCCAGAACATCCTGGTGCCTCTGGCCAACACTGCCTTTTCCAGGGTGCAGCCCTGGAGTGTAGTTTT
GGGCTGGAGGAGATCTTCGAGGCTGTGTGGGTGAATGAGTCTGTGTACGCTGTGACCAGGTGGTGTGCACACG
ACCCGGAAGAGCCAGGTGTTCCCGCTCAGCCTCCAATAAGGGGCGGCCAGCCGATTCTGGACAGCCCTGAG
CCCATGACAGTCATGGTCTATAACTGTGCCATGGGCAGCCCCGACTGTTCCAGTGCTGGGCCGCGAAGACCTG
GGTCACTGTGCATGTGGAGTGTGGTGCCTGCGGGGCTCTGCAGCCCATGGCTGGCACCTGCCCCGCC
CCCGAGATCCGCGCGATTGAGCCCTGAGTGGCCCGTTGGACGGTGGGACCCTGCTGACCATCCGAGGAAGGAAC
CTGGGCGCGGGCTCAGTGACGTGGCCACGGCGTGTGGATTGGTGGTGTGGCCTGTGAGCCACTGCCTGACAGA
TACACGGTGTGCGAGGAGATCGTGTGTGTACAGGGCCAGCCCCAGGACCACTCTCAGGTGTGGTGAACGTGAAC
GCCTCTAAGGAGGGCAAGTCCCGGACCGCTTCTCTACGTGCTGCCCCCTGGTCCACTCCCTGGAGCCTACCATG
GGCCCCAAGGCCGGGGCACCAGGATCACCATCCATGGGAATGACCTCCATGTAGGCTCCGAGCTCCAGGTCTCTG
GTGAACGACACAGACCCCTGCACGGAGCTGATGCGCACAGATACCAGCATCGCCTGCACCATGCCTGAGGGGGCC
CTGCCGGCTCCGGTGCCTGTGTGTGTGCGCTTCGAGCGTGGGGCTGCGTGCACGGCAACCTCACCTTCTGGTAC
ATGCAGAACCCGGTCAACAGGCCATCAGTCCCCCGCGAGCCCTGTAGTGGCGGAGGACCATCACAGTGGCT
GGTGAAGCTTTCCACATGGTGCAGAATGTGTCCATGGCCGTCCACCACATTGGCCGGGAGCCACGCTCTGAAG
GTTCTCAACTCCACCCTCATCACCTGCCCCGTCCCCGGGGCCCTGAGCAACGCATCAGCGCCAGTGGACTTCTTC

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FIGURE 43B

ATCAATGGGCGGGCCTACGCAGACGAGGTGGCTGTGGCTGAGGAGCTACTGGACCCCGAGGAGGCACAGCGGGGC
AGCAGGTTCCGCCTGGACTACCTCCCCAACCCACAGTTCTCTACGGCCAAGAGGGAGAAGTGGATCAAGCACCAC
CCCCGGGAGCCTCTCACCTCGTTATCCACAAGGAGCAGGACAGCCTGGGGCTCCAGAGTACAGAGTACCGGGTC
AAGATAGGCCAAGTAAGCTGCGACATCCAGATTGTCTCTGACAGAATCATCCACTGCTCGGTCAACGAGTCCCTG
GGCGCGCCGTGGGGCAGCTGCCCATCACAATCCAGGTAGGGAACCTTCAACCAGACCATCGCCACACTGCAGCTG
GGGGTAGCGAGACGGCCATCATCGTGTCCATCGTCATCTGCAGCGTCCCTGCTGCTGCTCTCCGTGGTGGCCCTG
TTCGTCTCTGTACCAAGAGCCGACGTGCTGAGCGTTACTGGCAGAAGACGCTGCTGCAGATGGAGGAGATGGAA
TCTCAGATCCGAGAGGAAATCCGCAAAGGCTTCGCTGAGCTGCAGACAGACATGACAGATCTCACCAGGAGCTG
AACCAGAGCCAGGGCATCCCCCTTCTGGAGTATAAGCACTTCGTGACCCGCACCTTCTTCCCCAAGTGTTCCTCC
CTTTATGAAGAGCGTTACGTGCTGCCCTCCAGACCCTCAACTCCAGGGCAGCTCCAGGCACAGGAAACCCAC
CCACTGCTGGGAGAGTGAAGATTCTTGAGAGCTGCCGGCCCAACATGGAAGAGGGAATTAGCTTGTTCCTCA
CTACTCAACAACAAGCACTTCCTCATCGTCTTGTCCACGCGCTGGAGCAGCAGAAGGACTTTGCGGTGCGCGAC
AGGTGAGCCCTGGCCTCGCTGCTGACCATCGCGCTGCACGGCAAGCTGGAGTACTACACCAGCATCATGAAGGAG
GTGCTGGTGGACCTCATTGACGCCCTCGGCCGCAAGAACCCCAAGCTCATGCTGCGGCGCACAGAGTCTGTGGTG
GAGAAGATGCTCACCAGCTGATGTCCATCTGCATGTACAGCTGTCTGCGGGAGACGGTGGGGGAGCCATTCTTC
CTGCTGCTGTGTGCCATCAAGCAGCAAAATCAACAAGGGCTCCATCGACGCCATCACAGGCAAGGCCCCGCTACACA
CTCAATGAGGAGTGGCTGCTGCGGGAGAATCGAGGCCAAGCCCCGGAACCTGAACGTGTCTTCCAGGGCTGT
GGCATGGATCGCTGAGCGTGCAGGCCATGGACACCGACACGCTGACACAGGTCAAGGAGAAGATCCTGGAGGCC
TTCTGCAAGAATGTGCCCTACTCCCAGTGGCCGCGTGCAGAGGACGTCGACCTTGAGTGGTTCCGCTCCAGCACA
CAGAGCTACATCCTTCGGGACCTGGACGACACCTCAGTGGTGAAGACGCGCCGCAAGAAGCTTAACACGCTGGCC
CATTACAAGATCCCTGAAGGTGCCCTCCCTGGCCATGAGTCTCATAGACAAGAAGGACAACACACTGGGCCGAGTG
AAAGACTTGGACACAGAGAAGTATTTCCATTTGGTGTGCTGACGACGAGCTGGCGGAGCCCAAGAAGTCTCAC
CGGCAGAGCCATCGCAAGAAGGTGCTCCCGGAAATCTACCTGACCCGCTGCTCTCCACCAAGGGCAGCTTGACG
AAGTTTCTGGATGACCTGTTCAAGGCCATTCTGAGTATCCGTGAAGACAAGCCCCACTGGCTGTCAAGTACTTT
TTGCACTTCTCGGAGGAGCAGGCTGAGAAGAGGGGAATCTCCGACCCCGACACCTACACATCTGGAAGACCAAC
AGCCTTCTCTCCGGTTCTGGGTGAACATCTGAAGAACCCCCAGTTGTCTTTGACATCGACAAGACAGACCAC
ATCGACGCTGCTTTTCACTCATCGCGCAGGCCTTCATCGACGCTGCTCCATCTCTGACCTGCAGCTGGGCAAG
GATTGCGCAACCAACAAGTCTCTACGCCAAGGAGATTCTGAGTACCGGAAGATCGTGCAGCGCTACTACAAG
CAGATCCAGGACATGACGCCGCTCAGCGAGCAAGAGATGAATGCCCATCTGGCCGAGGAGTGCAGGAAATACCAG
AATGAGTTCAACACCAATGTGGCCATGGCAGAGATTATAAGTACGCCAAGAGGTATCGGCCGAGATCATGGCC
GCGCTGGAGGCCAACCCACGGCCCGGAGGACACAAGTTCAGCAGCAAGTTTGAGCAGGTGGTGGCTTTGATGGAG
GACAACATCTACGAGTGTACAGTGAGGCCCTGAGACACATGGAGAGTTGGTCAGGCTGCTGCTGGGAGAAATGGA
CGCCCACTGGGCTCAACTTGATCTTCTACCCCGTGCTGTGACTCAGACTGGGAAATACTGAGCAGAGACGGCT
GGGGCGGGGGCAGGAGGAGGGGCTGCTCTCTGAGACAGGGGCGCCCCGCTTGACCCCTGGGCACCTCCATCCC
CTCCCACCTGTCCCCAGATCAGTCTCTGGGATGGAGGCCAGAGAGCTGGTCAGGCTCCCCCATCTGCCCAGCAG
GCCTGCACGTGTGCCACCCACTTGCTCCACAACGTCCAGTTGGTCTGCTGCCAAGAGCCCCGTGCATCCAGGCG
GCCAAGCACAACTGGGGGAGAGGAGGCCCGCCAGCCCGAGGCTGCAGCCAGAACTCTACCTCATCCCACTG
GTGCAGGGAGCCCTCCTTGAAGTACCTTTGATTGGTTCTGCTTCAACTACCAAATGTTATCTCCACTTCCCC
CTCAGCCGTAGAGGATCCTGGCCACAGACAGTTTCAAGTAGTGTGAGATTTTGTGCTTGGGCGGCTGTTGGTA
GAGTGGGCAGTGCCCGCGCCATGGGGTGTCTGTGGGCTTCTCCAGGAGCAGGGAGGGTGGAGGGGAGGGATGGG
GGGCACAGGAGCTGGGAGCCCCGTCTCCAGGAAAAGGAGAGGGGTTAAGATGCACCGAGGCTGTAGCTGGGCTAC
TTGATCTTGCTGAAAGTGTCTTAAAGATAGCACCCTTTTTTTTTTAAAGCTTTTATATATATAAAAAACGTATC
ATGC

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FIGURE 44

PGCAARLSRARAPGPGAAGAGRKRLADPGPPASRRLRAPGSRPRLAPCTRRAAQPAHARMAPRAAGGAPLSARA
AAASPPPFQTPPRCPVPLLLLLLLGAARAGALEIQRRFPSPPTNNFALDGAAGTVYLAAVNRLYQLSGANLSLE
AEAAGVPVDPDPLCHAPQLPQASCEHPRRLTDNYNKILQLDGPQGLVVVCGSIYQGFQQLRRRGNISAVAVRFPF
AAPPAEPVTVFPSMLNVAANHPNASTVGLVLPAAAGAGGSRLLVGATYTYGYGSSFFPRNRSLEDHRFENTPEIAI
RSLDTRGDLAKLFTFDLNPSSDNLKIKQGAKEQHKLGFSVAFSLHPSDPPGAQSYAYLALNSEARAGDKESQAR
SLLARICLPHGAGGDAKLTESYIQLGLQCAGGAGRGDLYSRLVSVFPARERLFAVFERPQGSFAARAAPAALCA
FRFADVRAAIRAARTACFVEPAPDVAVLDSVVQGTGPACERKLNILQLOPEQLDCGAHLQHPLSILQPLKATPV
FRAPGLTSVAVASVNNYTAVFLGTVNGRLLKINLNEISMVVSRRVTVAYGEPVHHVMQFDPADSVYLYLMTSHQ
MARVKVAACNVHSTCGDCVGAADAYCGWCALETCTLOQDCTNSSQQHFWTSASEGPSRCPAMTVLPSEIDVRQE
YPMILQISGSLPSLSGEMACDYGNNIRTARVPGFAGHQIAYCNLLPRDQFPFPNPDHVTVMESVRVNGR
NIVKANFTIYDCSRTAQVYPHTACTSCLSAQWPCFWSQQHSCVSNQSRCEASPNPTSPQDCPRTLLSPLAPVPT
GGSQNILVPLANTAFFQGAALCESFGLLEEFAVWVNESVVRCDQVVLHTTRKSQVFPLSLQLKGRPARFLDSPE
PMTVMVYNCAMGSPDCSQCLGREDLGHLCMWSGDCRLRGPLQPMAGTCPAPEIRAIEPLSGPLDGGTLLTIRGRN
LGRRLSDVAHGVWIGGVACEPLPDRTYVSEEIVCVTGPAPGPLSGVVTVNASKEGKSRRDRFSYVLPLVHSLEPTM
GPKAGGTRITIHGNDLHVGSSELQVLVNDTDPCTELMRTDTSIACMPEGALPAPVPVCVRFERRGCVHGNLTFWY
MQNPVITAISPRRSPVSGGRTITVAGERFHMVQNVSMVHHIGREPTLCKVLNSTLITCPSPGALSNASAPVDF
INGRAYADEVAVAEELDPDEAQRGSRFRDYLNPQFSTAKREKWKHHHPGEPLTLVIHKEQDSLGLQSHEYRV
KIGQVSCDIQIVSDRIHCSVNESLGAAVGQLPITIQVGNFNQTIATLQLGGSETAIIVSIVICSVLLLLSVVAL
FVFCTKSRAERYWQKTLLOMEEMESQIREEIRKGAELQTDMDLTKELNRSQGIPFLEYKHVTRTFFPKCSS
LYEERYVLPSQTLNSQGSSQAQETHPLLGEWKIPESCRPNMEEGISLFSLLNNKHFLIVFVHALEQQKDFAVRD
RCSLASLLTIALHGKLEYYSIMKELLVDLIDASAANKPKMLLRRTESVVEKMLTNWMSICMYSCLRETIVGEPFF
LLLCAIKQQINKGSIDAITGKARYTLNEEWLLRENIEAKPRNLNVSFQCGMDSLSVRAMDTDLTQVKEKILEA
FCKNVPYSQWPRAEDVDLEWFASSTQSYILRDLDDTSVVEDGRKKLNTLAHYKIEGASLAMSLIDKKDNTLGRV
KDLDEKYFHLVLPDELAEPKSHRQSHRKKVLPEIYLRLLSTKGTLOKFLDDLKAILSIREDKPPLAVKYF
FDFLEEQAEKRGISDPDTLHIWKTNSLPLRFWNILKNPQFVFDIDKTDHIDACLSVIAQAFIDACSIDLQLGK
DSPTNKLLYAKEIPEYRKIVQRYKQIQDMTPLSEQEMNAHLAEESRKYQNEFNTNVAMAEIKYAKRYRPQIMA
ALEANPTARTQLQHKFEQVVALMEDNIYECYSEA

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FIGURE 45

CCCCTGCCCCCGGACAGCGCCGCCGCTGCCCCGCCATGGGTCGACAGAAGGAGCTGGTGTCCCGCTGCGGGGA
GATGCTCCACATCCGCTACCGGCTGCTCCGACAGGCGCTGGCCGAGTGCCTGGGGACCCATCCTGGTGATGTT
TGGCTGTGGCTCCGTGGCCAGGTTGTGCTCAGCCGGGGCACCCACGGTGGTTTCCCTACCATCAACCTGGCCTT
TGGCTTTGCTGTCACTCTGGGCATCCTCATCGCTGGCCAGGCTCTGCGGGCCACCTGAACCCTGCCGTGACCTT
TGCCATGTGCTTCCGTGGCTCGTGAGCCCTGGATCAAGCTGCCCATCTACACCCTGGCACAGACGCTGGGAGCCTT
CTTGGGTGCTGGAATAGTTTTTGGGCTGTATTATGATGCAATCTGGCACTTCGCCGACAACCAGCTTTTTGTTTC
GGGCCCCAATGGCACAGCCGGCATCTTTGCTACCTACCCCTCTGGACACTTGGATATGATCAATGGCCTTCTTTGA
CCAGTTTCATAGGCACAGCCTCCCTTATCGTGTGTGTGCTGGCCATTGTTGACCCCTACAACAACCCCGTCCCCG
AGGCCTGGAGGCCTTACCGTGGGCCTGGTGGTCTGGTCATTGGCACCTCCATGGGCTTCAACTCCGGCTATGC
CGTCAACCCTGCCCCGGGACTTTGGCCCCCGCCTTTTTACAGCCCTTGCGGGCTGGGGCTCTGCAGTCTTCACGAC
CGGCCAGCATTGGTGGTGGGTGCCCATCGTGTCCCCACTCCTGGGCTCCATTGCGGGTGTCTTCGTGTACCAGCT
GATGATCGGCTGCCACCTGGAGCAGCCCCACCCTCCAACGAGGAAGAGAATGTGAAGCTGGCCCATGTGAAGCA
CAAGGAGCAGATCTAGAGTGGGCAGGGGCCATCTCCCCACTCCGCTGCCCTGGCCTTGAGCATCCACTGACTGTCC
AAGGGCCACTCCCAAGAAGCCCCCTTACGATCCACCCTTTCAGGCTAAGGAGCTCCCTATCTACCCTCACCCCA
CGAGACAGCCCCCTTCAAGATTTCCACTGGACCTTGCCCAAATAGCACCTTAGGCCACTGCCCCAAGCTGGGGTG
GAACCGGAATTTGGGTCAATACATCCTTTTGTCTCCCAAGGGAAGAGAATGGGCAGCAGGTATGTGTGTGTGTC
ATGTGTGTGCATGTGTGTGCATGTGTGTGCAGGGGTGTGTGTGTGTGGGGGGGTTCCAGATATTCAGGGCAAG
GGACCAGTCGGAAGGGATTCTGGCTATTGGGGGAGCCAGAGACAGGGGAAGGCAGCCTGTCCATCTGTGCATAA
GGAGAGGAAAGTTCCAGGGTGTGTATGTTTCAGGGGCTTCACATGGAGGAGCTGCAGATAGATATGTGTTTCTGT
GTATGTGTATGTCTGCCTTTTTTTCTAAGTGGGGGCTTCTACAGGCTTTTGGGAAGTAGGGTGGATGTGGGTAGG
GCTGGGAGGAGGGGGCCACAGCTTAGGTTTGGAGCTCTGGATGTACATACATAAGTAGGAGCAGTGGGACGTGTT
TCTGTATAATGCAGGCATGAAGGGTGGAGTGAAGTCAGGTCATAAGTTTCATGTTTGTCTTTGTTTTGTTTTGT
TTTTAATGTATGTAGCAGATGTTACAGTCTTAGGGATCCGGGATGGGAGACCCCACTTTAGAAAGGGTCGTCACT
CCTTTAATCCTCTACTCAACAATGTACTCTTTTACTTTTATATTAAAAAATAAAATAAATATGTGCCTAAAAA
AAAAAAAAA

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FIGURE 46

MGRQKELVSRGEMLHIRYRLRQALAECLGTLILVMFGCGSVAQVVLSRGTHGGFLTINLAFGFAVTLGILIAG
QVSGAHLNPAVTFAMCFLAREPWIKLPITYTLAQTLGAFLGAGIVFGLYYDAIWHFADNQLFVSGPNGTAGIFATY
PSGHLDMINGFFDQFIGTASLIVCVLAIVDPYNNPVPRGLEAFTVGLVVLVIGTSMGFNSGYAVNPARDFGPRLF
TALAGWGSVFTTIGQHWWVPIVSPLLGSIAGVFVYQLMIGCHLEQPPPSNEEENVKLAHVKHKEQI

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FIGURE 47

ACCAACCTCTTCGAGGCACAAGGCACAACAGGCTGCTCTGGGATTCTCTTCAGCCAATCTTCATTGCTCAAGTGT
CTGAAGCAGCCATGGCAGAAGTACCTGAGCTCGCCAGTGAAATGATGGCTTATTACAGTGGCAATGAGGATGACT
TGTTCTTTGAAGCTGATGGCCCTAAACAGATGAAGTGCTCCTTCCAGGACCTGGACCTCTGCCCTCTGGATGGCG
GCATCCAGCTACGAATCTCCGACCACCACTACAGCAAGGGCTTCAGGCAGGCCGCGTCAGTTGTTGTGGCCATGG
ACAAGCTGAGGAAGATGCTGGTTCCTGCCCACAGACCTTCCAGGAGAATGACCTGAGCACCTTCTTTCCCTTCA
TCTTTGAAGAAGAACCTATCTTCTTCGACACATGGGATAACGAGGCTTATGTGCACGATGCACCTGTACGATCAC
TGAAGTGCACGCTCCGGGACTCACAGCAAAAAAGCTTGGTGATGCTCTGGTCCATATGAACTGAAAGCTCTCCACC
TCCAGGGACAGGATATGGAGCAACAAGTGGTGTCTCCATGTCCTTTGTACAAGGAGAAGAAAGTAATGACAAAA
TACCTGTGGCCTTGGGCCTCAAGGAAAAGAATCTGTACCTGTCCTGCGTGTGAAAGATGATAAGCCCACTCTAC
AGCTGGAGAGTGTAGATCCCAAAAATTACCCAAAGAAGAAGATGGAAAAGCGATTTGTCTTCAACAAGATAGAAA
TCAATAACAAGCTGGAATTTGAGTCTGCCAGTTCCTCAACTGGTACATCAGCACCTCTCAAGCAGAAAACATGC
CCGTCTTCCTGGGAGGGACCAAGGCGGCCAGGATATAACTGACTTCACCATGCAATTTGTGTCTTCTTAAAGAG
AGCTGTACCCAGAGAGTCTGTGCTGAATGTGGACTCAATCCCTAGGGCTGGCAGAAAGGGAAACAGAAAGGTTTT
TGAGTACGGCTATAGCCTGGACTTTCTGTGTCTACACCAATGCCCAACTGCCTGCCTTAGGGTAGTGCTAAGA
GGATCTCCTGTCCATCAGCCAGGACAGTCAGCTCTCTCCTTTCAGGGCCAATCCCCAGCCCTTTTGTGAGCCAG
GCCTCTCTCACCTCTCCTACTCACTTAAAGCCCGCTGACAGAAACCACGGCCACATTTGGTTCTAAGAAACCCCT
CTGTCAATTCGCTCCACATTCTGATGAGCAACCGCTTCCCTATTTATTTATTTATTTGTTTGTGTTTATTCA
TTGGTCTAATTTATTTCAAAGGGGGCAAGAAGTAGCAGTGTCTGTAAAAGAGCCTAGTTTTTAATAGCTATGGAAT
CAATTCATTTGGACTGGTGTGCTCTCTTTAAATCAAGTCCTTTAATTAAGACTGAAAATATATAAGCTCAGATT
ATTTAAATGGGAATATTTATAAATGAGCAAATATCATACTGTTCAATGGTTCTGAAATAAACTTCTCTGAAG

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FIGURE 48

MAEVP ELASEMMAYYS GNEDDLFF EADGPKQM KCSFQDL DLCPLDGGIQLRISDHHYSKGFRQAASVVVAMDKLR
KMLVPCPQTFQENDLSTFFPFI FEEEP IFFDTWDNEAYVHDAPVRSINCTLRDSQQKSLVMSGPYELKALHLQGO
DMEQQVVFMSFVQGEESNDKIPVALGLKEKNLYLSCVLKDDKPTLQLESVDPKNYPKKKMEKR FVFNKIEINN K
LEFESAQFPNWIYSTSQAENMPVFLGGTKGGQDIIDFTMQFVSS

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FIGURE 49A

CCCTTTTCTCCCGTTTTGAAGAGACAATGCTACTTTCAGTTTGGAGCACAAACATATGATCAGCACATGGAAAT
GTGGTAATTCGGATGCATTTCGTGATTGCAACAGATTGAAGAAATTAGACCAGACAAAGAGTGTTTTTAGAGGAGA
GAGGAGGAGGAGGAGGCTGAGAGAGGGAGGGCGACGGGGGTGAGAAAGGGGAGGCCGCCTCTGAGCGGGACGCCG
GGACTCCCGCCGCTGCTAAATATATCCGTAGAATGGAGAGGGACCGGATCTCAGCCTTGAAAAGATCTTTTTGAGG
TCGAGGAGGTCGAGACACCAACTCCACCCACCCCGGAGGGTCCAGACTCCCCTACTCCGAGCCACTGTGGCCA
GCTCCACCCAGAAATTCAGGACCTGGGCGTGAAGAACTCAGAACCCTCGGCCCGCCATGTGGACTCCCTAAGCC
AACGCTCCCCCAAGGCGTCCCTGCGGAGGGTGGAGCTCTCGGGCCCCAAGGCGGCCGAGCCGGTGTCCCGGCCGA
CTGAGCTGTCCATTGACATCTCGTCCAAGCAGGTGGAGAACGCCGGGGCCATCGGCCCGTCCCGGTTCCGGGCTCA
AGAGGGCCGAGGTGTTGGGCCACAAGACGCCAGAACCGGCCCCCTCGGAGGACGGAGATCACCATCGTCAAACCCC
AGGAGTCAGCCCACCGAGGATGGAGCCCCCTGCCTCCAAGGTCCCCGAGGTGCCACTGCCCTGCCACCGACG
CAGCCCCCAAGAGGGTGGAGATCCAGATGCCCAAGCCTGCTGAGGCGCCACCGCCCCAGCCAGCCAGACCT
TGGAGAATTCAGAGCCTGCCCCCTGTGTCTCAGCTGCAGAGCAGGCTGGAGCCCAAGCCCCAGCCCCCTGTGGCTG
AGGCTACACCCCGGAGCCAGGAGGCCACTGAGGCGGCTCCAGCTGCGTTGGCGACATGGCCGACACCCCCAGAG
ATGCCGGGCTCAAGCAGCGCCTGCATCACGGAACGAGAAGGCCCGGTGGACTTCGGCTACGTGGGGATTGACT
CCATCTGGAGCAGATGCGCCGGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGTGGTGGGCGAGAGCG
GCTTGGGTAAATCCACCTTAATCAACACCCCTCTTCAAATCCAAAATCAGCCGGAAGTCGGTGCAGCCACCTCAG
AGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCACGCACGATATTGAGGAGAAAGGCGTCCGGATGAAGC
TGACAGTGATTGACACACCAGGGTTCGGGGACCACATCAACAACGAGAAGTCTGGCAGCCCCATCATGAAGTTCA
TCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCATCCCGGACACCCGCG
TCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCTGGACATCGAGTTTATGAAACGCC
TGAGCAAGGTGGTCAACATCGTCCCTGTATCGCCAAGGGGACACACTCACCTGGAGGAGAGGGTCCACTTCA
AACAGCGGATCACCGCAGACCTGCTGTCCAACGGCATCGACGTGTACCCCAAGGAATTTGATGAGGACTCGG
AGGACCGGCTGGTGAACGAGAAGTTCGGGAGATGATCCCATTGCTGTGGTGGGCAGTGACCACGAGTACCAGG
TCAACGGCAAGAGGATCCTTGGGAGGAAGACCAAGTGGGGTACCATCGAAGTTGAAAACACCACACACTGTGAGT
TTGCTACCTGCGGGACCTTCTCATCAGGACGCACATGCAGAACATCAAGGACATCACCAGCAGCATCCACTTCG
AGGCGTACCGTGTGAAGCGCCTCAACGAGGGCAGCAGCGCCATGGCCAACGGCGTGGAGGAGAAGGAGCCAGAAG
CCCCGAGATGTAGACGCCCCCTGCCCACCCCGGGATCCTGCCCCCAAGTCATTTCGGTCCCCCCCCCAGGCC
TCCCACCACCCCATTTTATTTATATGATTTTCTCCATTTGTTCATCGTTCCCCACCCCTTCGACATGCTGCCAGG
AAACAAGGGAAGGGGCTCCCTCCGAGTGAGTCAGTGATGAGGCCGCGGCTCCCGAGGTTGTGGGGAGGCTGC
ACTGGAGCCACAGGCAGGGGTGAGAGCACCCACTGAATTGACATGACCCTCTGTCCCAGGCCTGGCTCCCCGAG
GGCTCAGAAGAGCAGCTTCGGTGTGCAGATCATCCGTGCTGTGGGGTCTCAGTGCCGGAGCTTGGGGTGGGGC
CAGGCCTCGCACTTGACAGAGGAGCCAGTGGGCTGCACGCTCCCCCTCATCCCCATCGGCCCTGTCCCTGGAGT
GTGTGAGAGCCAGGGGAGAATGCAGCCCACAGGAGCACCTGGACCCCTGCCCCGCACATGGTGTGGCCATCA
CTCAGCCCCTACCCCTGCCCTGCTCCTAAGGGTAGAAAACCTCAGGGTCCCCTGCCACCGACTGCCAGCCACTC
CAAGCCCCCTGGCAGCTGCCCCCTCTGGAGCAGAAAGTGCCCTTTATCTCAGCCATCCGCAGACTGCTGGCCAGAT
GCGGGGACAGGCTGGAATGAGGGAGGCGTCTTCACTCCCTGCCATCCCCCTCTCAGCCACCCCGCCCCCACC
GGGCTGCAGGTGCTGCTGATGCGCTGGGATCTGATTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCTCA
TCCCCAGTTTTGAAAAGGTCTAAGCAAGTGAGTCTGGTGGAGGAGCTGAGGGAGGGACCATGGAAGGTGCCAG
AAGGAAGGTTGGCGGGGACGTTGGGCCGTGGCTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCTGCC
CTGCCCAAGTGACCAGGGAAGTGTGTGTGTTCATGTGTATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTT
GGCCCCAAGACTGGGCTGTAGTTACATTAATGCCAGCCAGCCACCCCTGCCACTACCCCTCCTGGCCAGGCCT
TGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCAGCGAGCCTGACTCTGTTGATCTACCCGTGCTGGGCCCT
CCCCTCAGAGCCCATGGTAACGAACCCCTAGAAAGGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAG
AGCAAGGTTTCGTGGCAGCACGGCCCGGCCCTCACCTCTGTCCCACGAGGGGACCATGGGGGCTGTCTTTG
CAGGGCACAGATGACCAAGTCCCTTCTGCTTCTGTTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCTGAT
GAGACTCCACTCAGGTGCACACATCACCAGGTGCATCTGCAGGCACCGGGCTGGCTGCTGCAGCCAGGAGAAGG
TCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTGTGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCA
CCCAAGAGAGGAAGGACCCCTCACCACCCCACTGGCGAGACAGTTACTTTGCCGACTTGCCATGTTTTTGCCA

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FIGURE 49B

AAACCAAGATTTTGAAGGAAATGAGTGGCCAGCGCCAGGGCCCAGGCCATGTGGCCTGCCAGCCTCAATGTCAC
TTGGCGGCGGGGTGGGGTGGGGTGGGCAGCAGCATCCAGCCTTGAGATGCTTCACCTTCCTTCTGTAAACCA
GACTTTGAAAAATTGTCGTTTCATCAGGCTCTGTTCCCTCAATGGCCTTTGCTACGTGCCTCCCGAGAAATTG
TCTTTTGTATAAATGACAAAGTGTGAAAATGTATTCCTGAAATAAATGTTTCAAATGCAGAAACCCAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 50

MERDRISALKRSFEVEEVETPNSTPPRRVQTPLLRA TVASSTQKFQDLGVKNSEPSARHVDSLSQRSPKASLRV
ELSGPKAAEPVSRRELSIDISSKQVENAGAIGPSRFG LKRAEVLGHKTPEPAPRTEITIVKPQESAHRMEPP
ASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQ TLENSEPAFVSQLSRLEPKPQPPVAEATPRSQEATE
AAPSCVGDMADTPRDAGLKQAPASRNEKAPVDFGYVG IDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTL
FKSKISRKSVQPTSEERIPKTIEIKSITHDIEEKGV RMKLTVIDTPGFGDHINNENCWQPIMKFINDQYEKYLQE
EVNINRKKRIPDTRVHCCLYFIPATGHSRLPLDIEF MKRLSKVVNIVPVIKADTLTLEERVHFKQRITADLLSN
GIDVYPQKEFDEDEDRLVNEKFREMIPFAVVGSDHE YQVNGKRILGRKTKWGTIEVENTTHCEFAYLRDLLIRT
HMQNIKDITSSIHFEAYRVKRLNEGSSAMANGVEEKE PEAPEM

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FIGURE 51

GGCACGAGGGGAAGTTGCCGGCGGCCGCGCGGCCCTCCCGGGCGGGCCTACAGCCATGTCCCGGGACCCGGGGTCG
GGCGGCTGGGAGGAGGCCCGCGCGCAGCTGCCGCGCTCTGCACCCTGTACCACGAGGCCGGACAGCGGCTGCGC
CGCCTGCAGGACCAGCTCGCTGCCGCGACGCCCTCATCGCTCGCCTCCGCGCCCGCCTGGCCGCGCTGGAGGGG
GACGCCGCGCCGTCCCTAGTGGACGCGCTGCTGGAGCAGGTTGCGCGCTTCCGGGAGCAGCTGCGAAGGCAGGAG
GGCGGCGCCGCCGAGGCCAGATGCCAGGAAATTGAGAGGCTGACTGAGCGACTAGAAGAAAAAGAGAGGGAG
ATGCAGCAGCTGCTGAGCCAGCCCCAACACGAGCGAGAGAAGGAAGTCGTCTGTCTACGGAGGAGCATGGCAGAA
GGGAGCGCGCCCGGGCCGCCAGTGACGTCTGTGCCCTCCTTGGCCAACGAGACCCATCAGCTGCGGAGGACG
CTGACCGCCACCGCCACATGTGTACGATCTGGCCAAGTGTCTGGATGAACGACAGCATGCACAAAGGAATGTG
GGGAGAGAAGTCTTGACCAGTCGGAACACACAGATGGGCACACCTCTGTCCAGAGTGTATTGAGAAGTTGCAG
GAAGAAAATCGACTGTTAAACAGAAGGTGACTCACGTGAAGACCTCAATGCCAAGTGGCAGCGCTACAACGCC
AGCAGGGAGCAATACGTGAGGGGGCTCCATGCGCAGCTCAGGGGGCTGCAGATCCCCACGAGCCCGAGCTGATG
AGGAAGGAGATCTCCCGGCTCAACAGACAGTTGGAAGAGAAAATAAATGACTGTGCCGAAGTGAAGCAGGAGCTG
GCGGCCCTCCAGGACGGCCCGGGATGCTGCGTTGGAGCGGGTGCAGATGCTGGAACAGCAGATTCTCGCTTACAAG
GATGACTTTCATGTCAGAAAGGGCCGATCGGGAACGGGCTCAAAGTAGGATTCAAGAAGTGGAGGAAAAGGTGCGC
TCTTTGCTGCACCAGGTGTCTGGAGACAGGATTCTCGAGAGCCAGACGCGCGCCGGATTACGCTGGGAGCAAA
ACTGCCAAGTATTTGGCCGCCGACGCATTAGAGCTTATGGTGCCTGGTGGCTGGAGGCCTGGGACTGGGTCCCAG
CAGCCAGAACCCCTGCAGAGGGCGGGCATCTGGCGCGGTCCAGAGAGGCCAGGGGGACCTTCAGTGCCCTCAC
TGCTGCAGTGCTTCAGTGACGAGCAAGGGGAAGAGCTCCTCAGGCATGTGGCCGAGTGCTGCCAGTGACCGAGA
CTCACCCTGCCCTTGCGGCCTCCTGGCCCGGTGCAGCTGCCCTCAGGGACAGGGTGGGTGCTCTCAGATGCCAT
GGGTTGAGCTCTACTGAGAGCCAAGGCCCTAGAATAGTTGCGGGGCACTCTGATCGTTCACTTTGGTCCCTTTG
GCTATGGAACAGGCTGGGTACAGGGAACTGCCAGTGAGGCTGGAGGCTGGAGGTGGAGATGGGGTCAGGAACAT
CTGGCAGAGGGAGGTCCCAGTCTGTGTCTCCATCAGGCTTAAGCCAGAGCTATCTGGTGTGGTGTGCCAGCCCC
TCCCCAGCCTGCCTAGAAAGGGGTGGCTGCCTGAGGGAGTCACTTGTATGGTCCCCAGGGTGGGAGCCCCATCC
TGTTCTATGGAATAAAGCGTCGCCTCTCTGCCTCGAACCAGTCAAATGGAGTATTGCGGCTGCACGTCACTAG
GGTGGCCACCCCGCCATTGCGAGCCACATGTCTGCACTGAGAACTGCATTTAGTAGCATTGTTCATCCAGCC
GGAAGTTAAAGCACACTTACTTTATTACCTATTTTTATAATAAACGTTCTTGCTGCTGTGACTGCAAAAAAAAA
AAAAAAAAA

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FIGURE 52

MQQLSQPOHEREKEVVLLRRSMAEGERARAASDVLCSLANETHQLRRILTATAHMCQHLAKCLDERQHAQRNV
GERSPDQSEHTDGHTSVQSVIEKLQEENRLLKQKVTHVEDLNAKWQRYNASRDEYVRGLHAQLRGLQIPHEPELM
RKEISRLNRQLEEKINDCAEVKQELAASRTARDAALERVQMLEQQILAYKDDFMSEADREERAQSRIQELEEKVA
SLLHQVSWRQDSREPDAGRIHAGSKTAKYLAADALELMVPGGWRPGTGSQQPEPPAEGGHPGAVQRGQDGLQCPH
CLQCFSDQGEELLRHVAECCQ

GTTCCGCTGCGCACCTGGCTCAGGTGAGCTGCCCGCCCCCGCCGGCGCGAGCCCCAGGTCTTGGCAGCAGCC
 CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCTTGGATCAGTCT
 GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCCTGGAGCCAGCCTGCCCGAGGAGGCCCGGCTCAGAGC
CATGCCAGGTGTCTGTGATAGGGCCCTGACTTCCTCTCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG
 CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT
 GAAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCTGGGTCAAGGCCAACCTGTC
 AGAGGTGCTTGTGTCCAGTGTCTTGGGGGTCAACGTGAACAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT
 CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCCT
 CCTCCTGGTCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA
 CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACAGCGCTACGTCTCCTACAGCGACTGCC
 CGAGGACCGCAAGTTCGTGAACCTTATCCTAAAGCCGCAGCTGGAGCGCGCTCGGGGCTACAAGCTCTTCTTGGA
 CGACCGCGACCTCTGCCGCGCGCTGAGCCCTCCGCCACCTCTTGGTGAACCTGAGCCGCTGCCGACGCTCAT
 CGTGGTGCTTTTCGACGCTTCTCTGAGCCGGGCTGGTGCAGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT
 GGAGCTCACCCGCAGACCCATCTTCACTACCTTCGAGGGCCAGAGGCGCGACCCCGCGCACCCGGCGCTCCGCCT
 GCTGCGCCAGCACCGCCACCTGGTGACCTTGTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCTCCGATTTTTG
 GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGAGACCCCCAGACGCAGCTGCA
 GGACGACAAGGACCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC
 GGACCTTGAGGGCGACCTGGGTGTCCGGGGGCTGTTTTGGAGAGCCATCAGCTCCACCGCACACCAAGTGGGGT
 CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAAACTACAGTGCCCGCACAGA
 CTTCTACTGCCTGGTGTCCAAGGATGATAATGTAGCTCCACCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC
 AGGGCAGCGGCGTGCCTCTGCTCAACAGGACCACAACCCTGCCAGCAGCCTGGGACCCTGCCAGCAGCCC
 TGGGAAAAGGCTGTGGCCTCAGGGCGCCTCCAGTGCCAGAAAAATAAAGTCTTTTGGATTCTGAAAAAAAAA
 AA

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FIGURE 54

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVSQWIKDGLPLGIGGHYSLHEYSWVKANLS
EVLVSSVLGVNVISTEVYGAFTCSIQNISSFTLQIRAGPTSHVAASLLVLLALLLAALLYVKRLNVLLWY
QDAYGEVEINDGKLYDAYVSYSDCPEDRKVFNFILKPQLERRRGYKLFDDRDLLPRAEPSADLLVNLSRCRRLI
VVLSDAFLSRAWCSHSFREGLCRLELTRRPIFITFEGQRRDPAHPALRLLRQHRHLVTLWLWRPGSVTPSSDFW
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLILGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

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FIGURE 55A

GGTTGGCTCTTGCACTTCTGGCTCTCTGGACTTGGTTATGTGATTGAGCCTCCATGGCCTCCGTGTCTTTGTCT
GTCAATGGGTTTGATTAAAGCGTTGACCTCATAGGTTCTTAGGAGGATTAATGAGAACATTTATGTAAAGTCG
TTACATGGAGCCTTGGTATGTGCCGGAAGCTTTAGCCCTTTATTAAAAGTGACAGCAGACCCAGCACGGTGGCT
CATGCCCTGTAATCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGGGGTCAGGAGTTCGAGACCAGCTAC
TCGGGAGGCAGAGGCAGGAGAATCGCTTGAACCTGGGGTGACAGGTTGCAGTAAGCTGAGCTCGCACCAGTCA
CTCCAGCCTGAGTGACAGAGTGAACCTCAGTCTCAAAAAAAAAAAAAAAAAAAGAGTGGCAGTAGTGGTGGGGGA
GACCCCATCCCCCTTGCTGGGGTTTCTAGGAAAGAAGGCTGGTGAGAGCTGTTGCTGGTGGTGGGCGCTGAGC
CGCAGGGTCTGAGGGCCTACCTGTGCTACCCAGAGCTGCCTGAGAAGTGGACAGACACGCGGGAGACGCTGCT
GGAGGGCATCTGTTTCAAGTACCTGGGCATGACGCTAGTGGAGCAGCCCAAGGGTGAGGAGCTGTCCGGC
CGCCGCCATCAAGAGGATCGTGGCTACAGCTAAGGCCAGTGGGAAGAAGCTGCAGAAGGTGACTCTGAAGGTGTC
GCCACGGGGAATTATCTGACAGACAACCTACCAACCAGCTCATTGAGAAGCTGTCCATATACAGGATCTCCTA
TTGCACAGCAGACAAGATGCACGACAAGGTGTTTGCATACATCGCCAGAGCCAGCACAACCAGAGCCTCGAGTG
CCACGCCTTCCTCTGCACCAAGCGGAAGATGGCACAGGCTGTTACCCTCACCGTAGCCAGGCCCTTCAAAGTCGC
CTTTGAGTTTGGCAGGTGTCCAAGGAAGAGAAGAGAAGAGGGACAAAGCCAGCCAAGAGGGAGGGGACGTCCT
GGGGGCGCCGAAGACTGCACCCCCCTTGAAGAGCTTGGTCCCACTGGGAACCTGCTGGACTTAGAGGAGAC
GGCTAAGGCCCCGCTGTCCACGGTCAGCGCCAACACCACCAACATGGACGAGGTGCCGCGGCCACAAGCCTTGAG
TGGCAGCAGTGTGTCTGGGTGAGTGGTTGTGTGGCCAGCAGATCGGTGATCCTCAGCCTGACCTCTGGGTGAGC
CTGGGGCTGTCTCCAGGGACAGGCTCTGGGACCCGTGACTTGTGGGCCTCTGGGAGGACCAGACCCAGCCCGGTA
GTGCCCAGGCGCAGGATAGGGGATGAACAATGTCCTTTTGAACCTGAGGCTGCATCCCCAACAGGCTTGGCTCC
CAGCACAGCTGTCTCCTCACAATGCTTGGCCTCTTGGCCTGAGCGTCCACGGCTCTGCCCACCACAAGACCAGCC
AAAGGCGCCCTTGTCTTGTGTGGCAGAGCTCGCTCCTACCACCCCTCCCCCTCAGCCGCTGAATGAGGACCC
AGAGACTTGGGCAGTCACCAGCTTGGTCCCTGACTCCCTCAGGGACTCAGGGCAAGCCCCCTGACCTCTCTGTCT
CAGCTTTTTCACTCTCAGTAAGGGTGATGACCTCTGCCAACGGAATCTCCCCGAGGAACCTGAAATTTAATTTTAA
TTTTTCATTGGAAATAATTTAGACTGTGTTACAAAATTAGTACAGAGAATTCCTGTTTACCCGTCTATCCAGAT
TCCCCAATTGTTAATCTTGCATGACCACATTACACTGGTCAGAATCAGGAAACAAACAGTACTGTGCTGTT
ATATAATCTATAGAATTACACATTTCTCCAGGTGCCCTTTCAGTGTCTGTTTCTGGCCCAGGATCCATTGCAG
AATCACATGTTAACTTGTCTGCTCTTTAATTTTTAAAAATCTGGGTACTGGGGGCTCCCTGGTGTCCCTCGAGC
CTGTTCTCTGCTGTTTGGGAACCAACCTTGCCACTTGCCCATCTCACCAGAACGCCATGGAGGGACCTCACTG
TCGCTTTTCTGCTGAGGCTGTGGGACTCCTGGCATCAGTTATCCCTCATGAACCTGGAAATTTTGGCTTGGCTTTT
GGAAGTAAATGAAGGCAAGAAAACCTCCCTTCCCCACCTCTTCTTTTGAATTTGAAAGCCATAGAAGTCATCA
GGTCCAATGCCCTCCTCTTATTGAAGGAAAAGCTGAGTTTCAACGTGGAGCAGTGACTTGCCCAAGGTCTCACGG
GCAGGTAGCATGGACAGGGCACTGAACCCACCTGGGTCTCCAGACACCTGGGACATGGCCTTTCTCTCTCCC
ACGTCTCCAGCTTTGGGTCTTGGGCTGAGATGCTGGCGATGCACCCAGGCAGGAGGCTGCTGAGGCCGTGCC
TCCAGGCGCCACCCCTGAGCTTGTGTCTGAGTCCCTGTAGCTTACCAGGGCTGGGACAAGCCCCAGCTGTGAG
CATGGGCTCCCCAAACATAGTTCTTATCTCTGCTTTGTTTTTCCCAAGGAGCTGGATGATGGCCTGGATGAAG
CGTTTTCGAGGCTTGCCAGTCTCGGACAAACCCTCAGGTCTGGACACTGGCCTGACAGCCAGGACATGCATT
ACGCCCAGTGCCTCTCGCTGTCTGACTGGGACAAGCCTGACAGCAGCGGCACAGAGCAGGATGACCTCTTCAGCT
TCTGAGGGCCCCGGGGCCAGCCGGACACAAGCGGCCCTGACACGTGATGGACCAAGCCACCTGCTGCGGGGGAGC
CAGTTCTGGGGCCCCGCTGCCACCTCTCCAGCCCTCAGCATTGTGAGCTGAAGATCAGAGCTGCAGCCAGTCA
GGCAGGGGAGAGATTTTCTTTTAAAGCCCTGCTCTTTCTCTGAGAACCAAAAGATGCCTGAATATTTATTCAGT
GACTTCTGGCTTATGCTCAGAAGCCAGTCTGCGTCAGGCACGTCTCTGCTGCGTGACATGTGCACTGTGTAAT
CGGCTCCCGCTTGCTCTCTGAGCAAGCTCTGCCCTGGCTGTGGGTATCAGGACTGTGACCAAGCATTCTAG
TCCCTTCTCTCTTTCTAAGGACCCAAATTTCCCTGGGGGCATCTGCTTCTGAAAGCTGTTGGATTTTCACTGAT
TTTTCCCCCACCACCCAGCACAGGAGAGCACCCACAGCCGAGAAGGGGAATGTGTCTCTCTGCTCTGCTTCT
CAGGGCCAGCAGGCGGGGTTTGAAGCCCTGGACCCAGGCTCTTAGAGACTAAGGGGACGCTCTGACCAAGA
CGATACAGCTTGGCACTTTAAAGCATTAAACAGCAGGTGTGACCTGAGGGCTCCTCCATGGTGTGCTGATTGAGTC
CAGCTTCTCTTCTGCCCTTCTCCAGGAGAAGGGGCCCAAGGTCCCCGTGGATGGTCTCCACCTGTGCTTGAAC
CAGTGTAACCTGGCTGCTCCCTGCTCCAGGGACTGACACGGGGATCATCTCTGTGACCGCCCTCCGTGGGGCCCC

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FIGURE 55B

TGCCTGCCTTCTCCCTCCACGCAAGGCTGTGCTCTTCTCTGGTTTCTGTGTGTCCGTTTGAGTGTCTGCGCCC
CGCCTCCCCATACTTCCTGGGATGATGTGTGAAACCTGACACCTAGATTTATTTGGAAATATTCTATGACCACTT
TACAGATGAGGAAACTGAGGCCTCAAGCGTGGAGGGGTAGAGTGAAGAGTAGAACCCAGGTCTGATGCCAAAGCT
GCTTTCTTCTCTGCCTCCTCCTCAGCAACTCACACCTCCTTTTCTTCTAGCTTTGTTGTCTCCAGGAACCAA
AAAACCCAGCTATTTTCTGACCAAAATGTGTTTCATAACAAACCATCTGGTGCCTTTCCACACAGAACTGGCAG
GAGCCTCGTGTCTGCTAGCTGTCTCTTGTGATTTCGGTGAAGTGAAGTGTGCTCATTCCG
AGGGTGAAACAAAATCCAACCTGTGAGAATCATGCTGTTCTTTGCTGACACTGTGACCCTGGGTGCGGACAG
ACCAGCAGCAATCTGTCTTTAGAAICGCTTTCTTCTCCCTTTTGCCCCGTGGGGCTCCCGGCATCCTGAAA
GCCAGCAAAGCCTCCAGCATCTTTTCCATCCTGAGGTGCCTCCAGTGGCCTGGCTTGTGCGAGCAAGTTTCATC
AGCCCTAGGGGAAAACACGGCCCTCCTGGGAACCTCCTTACCTGGAGTAACCGGACACCTTAGACGGAGGTGCCTG
AGGGTGGGGTGGGATTGTCAGGGTCATTATCAGAACATGAGGATAACTTCTTGCCCTGCTCTGTAGCCACCTC
CTTGGCACCGCCTCTATTTGTCTATAAGGCGGCGTGGGCGAGGCCTGACACAGGCCAGCCTTGGCACGAGGGGGG
CCAGGGGTTCTGAGAAGCGCTGCCCTGTGAGAGCCACGCTGGCCTTCGTCTCCATCTCTGGTTGACGGGCTGTCC
GTTTGCCCTCTGTGTGTCTGCAGACAAGTCTTGCTGTGCTTTATTTGTGAACTTTAATGAGGAAAAACAAATA
ATAAATGTTCTCGTTTTGAAACTC

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FIGURE 56

MLFSLKYLGMTLVEQPKGEELSAAAIKRIVATAKASGKKLQKVTLKVSPRGIILTDNLTNQLIENVSIYRISYCT
ADKMHDKVFAYIAQSQHNQSLECHAFCTKRKMAQAVTLTVAQAFKVAFEFWQVSKEEKEKRDKASQEGGDLGA
RQDCTPPLKSLVATGNLLDLEETAKAPLSTVSANTTNMDEVPRPQALSGSSVWVSGCVASRSVILSLTSG

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FIGURE 57

GGCACGAGGGTTAGATTAGTCTGAAGCCGCCACCAGCCCCAGGCCCCCGTGCAGAAGAAAAGCGGGAGGGGAACGG
CGGAGGCCGCGCTGCCCTGCACCGCCCTCCTGGAGGCCACTTGGAGAGTCCGGCCCCGAGGAGGCCATGGCCAC
AAGTGCCCCACAGCTGGCCCCAGGTTGCCAGCGTCGCTACAGCCCAGACCAAGGCAGAATAATCTCCGGATGAGCT
GGTGGCACCGCTGAGCCTTTGGTCTCACCAGGGCTTCTGTTGCTGGCAGGCGGGGTGGAGCGGAGCTGCTGGGA
GGCTGCTGGATAGGAGAGGGGTCACGGCTGCGGAAGAGGAGGTTCTTCGGGACACCCGTGGATGGACACGGCAAG
GAAACACCAGGCCAACACAGCTGGGGATAAAATAGCACAACCACACCCTGCCGTCCAGCGCCTCCCAGCCTGTG
CCCCCTCCTAGTACCACCAGCAACCATCAATCCCGTCTCCTCCTGCCTCCTCCTGCAATCCACCCCGCCACGA
CTATCGCCATGGCAGCCCTGATCGCAGAGAÀCTTCCGCTTCTGTCACTTTCTTCAAGAGCAAGGATGTGATGA
TTTTCAACGGCCTGGTGGCACTGGGCACGGTGGGCAGCCAGGAGCTGTTCTCTGTGGTGGCCTTCCACTGCCCCT
GCTCGCCGGCCCGGAACCTACCTGTACGGGCTGGCGGCCATCGGCGTGCCCGCCCTGGTGCTCTTCATCATTGGCA
TCATCCTCAACAACCACACCTGGAACCTCGTGGCCGAGTGCCAGCACCAGGAGGACCAAGAAGCTGCTCCGCCGCC
CCACCTTCCTCCTTCTAAGCTCCATCCTGGGACGTGCGGCTGTGGCCCCGTGCACCTGGTCTGTCACTCTCCCTGC
TGCGTGGTGAGGCTTATGTCTGTGCTCTCAGTGAGTTCTGGACCCTTCCTCACTACGGCCAGGGAAGAGCACT
TCCCATCAGCCCACGCCACTGAAATCCTGGCCAGGTTCCCTGCAAGGAGAACCCTGACAACCTGTGCACTTCC
GGGAGGAGGTCAGCCGAGGCTCAGGTATGAGTCCCAGCTCTTTGGATGGCTGCTCATCGGCGTGGTGGCCATCC
TGGTGTTCCTGACCAAGTGCCCTCAAGCATTACTGCTCACCCTCAGCTACCGCCAGGAGGCCTACTGGGCGCAGT
ACCGCGCCAATGAGGACCAGCTGTTCCAGCGCACGGCCGAGGTGCACTCTCGGGTGCTCGCTGCCAACAATGTGC
GCCGCTTCTTTGGCTTTGTGGCGCTCAACAAGGATGATGAGGAAGTATTGCCAAGTTCCTCAGTGGAAGGCACGC
AGCCACGGCCACAGTGGAATGCCATCACCGGCGTCTACTTGTACCGTGAGAACCAGGGCCTCCCCTCTACAGCC
GCCTGCACAAGTGGGCCAGGGTCTGGCAGGCAACGGCGCGGCCCTGACAACGTGGAGATGGCCCTGCTCCCCT
CCTAAGGAGGTGCTTCCCATGCTCTTTGTAAATGGCACTACTTGGTCCCAAAGTGAACCCCTGCTTGCTCACA
TCCATATCAGAAGGGGATTTTAAAAAAGTGTATCTTCTTGGCCAGGGGAAAGGACCACAAGGCAATCTGGGGT
GTGGACAGACCCAGTAGACAATGGAAGCCAGCCAGCAGGGCCAGGTGACAGTGAAGCTCACCAGTGGGCTCCTT
TATGGTACTCTATGCAGTTAATATGTATCTAGCTGCATAGGGACACCCAGCGCAGCAGTGCACCACTGGGAAGTG
GCCTCCAGTGCAGCCTCTGGCCTTATTTTATATATTTAAATTTTGTATAAGTTTTCTTACTAAAAAAAAAAAA
AAAAAA

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FIGURE 58

MAALIAENFRFLSLFFKSKDVMIFNGLVALGTVGSQELFSVVAFHCPSPARNYLYGLAAIGVPALVLFIIIGIIL
NNHTWNLVAECQHRRTKNCSAAPTFLLLSSILGRAAVAPVTWSVISLLRGEAYVCALSEFVDPSSLTAREEHFPS
AHATEILARFPCKENPDNLSDFREEVSRLRYESQLFGWLLIGVVAILVFLTKCLKHYCSPLSYRQEAYWAQYRA
NEDQLFQRTAEVHSRVLAANNVRRFFGFVALNKDDEELIANFPVEGTQPRPQWNAITGVYLYRENQGLPLYSRLH
KWAQGLAGNGAAPDNVEMALLPS

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FIGURE 59

ACGAGGGACGCAGCCATGGCGGAGGCGGCTTTGGAAGCCGTGCGGAGCGAGTTACGAGAATTCCCGGCCGCTGCA
AGGGAGCTCTGCGTGCCCTCTTGCTGTGCCCTACCTGGACAAACCCCAACTCCGCTCCACTTCTACCGGGACTGG
GTCTGCCCCAACAGGCCGTGCATTATCCGCAACGCTCTGCAGCACTGGCCGGCCCTCCAGAAGTGGTCCCTCCCC
TATTTAGAGCCACAGTGGGCTCCACAGAGGTGAGTGTGGCCGTGACCCAGATGGTTACGCGGATGCCGTGAGA
GGGGATCGCTTCATGATGCCAGCTGAGCGCCGCTGCCCTGAGCTTCGTGCTGGATGTGCTGGAGGGCCGGGCC
CAGCACCTTGAGTCCCTATGTGTCAGAAGCAGTGCTCCAACCTGCCAGCGAGCTGCCAGCTGCTGCCTGAT
CTGGAATCCCATGTGCCCTGGGCTCCGAAGCCCTGGGAAAGATGCCCGATGCTGTGAACCTTCTGGCTGGGGGAG
GCGGCTGCAGTGACTTCTTTGCACAAGGACCACTATGAGAACCTCTACTGCGTGGTCTCAGGAGAGAAGCATTTC
CTGTTCCATCCGCCCAGCGACCGGCCCTTCATCCCTATGAGCTGTACACGCCGGCAACCTACCAGCTAACTGAA
GAGGGCACCTTTAAGGTGGTGGATGAAGAGGCCATGGAGAAGGCAGAGGTGTCCAGGACCTGCCTGCTCACGGTT
CGTGTCTGCAAGGCCATCGCCTACCCTCTAAGGACCTAGTGACCCCTCTGACTGCTACGTGACTCTCTGGCTG
CCCACGGCTGCAGCCACAGGCTCCAGACACGCACGGTCAAGAACAGCAGTAGCCCTGTCTGGAACCAGAGCTTT
CACTTCAGGATCCACAGGCAGCTCAAGAATGTGATGGAACCTGAAAGTCTTTGACCAGGACCTGGTGACCGGAGAT
GACCTGTGTTGTGCTAGTACTGTTTGTATGCGGGGACTCTGCGGGCTGGGGAGTTCCGGCGCAGAGCTTCTCACTG
AGCCCTCAGGGTGAGGGGCGCCTGGAAGTTGAATTTGCGCTGCAGAGTCTGGCTGACCGTGCGAGTGGCTCGTC
AGCAATGGCGTCTGTTGGCCCGGGAGCTCTCTGCTTGCACGTTCAACTGGAGGAGACAGGAGACCAGAAGTCC
TCAGAGCACAGAGTTACAGCTTGTGGTTCCTGGGTCTGTGAGGGTCCGCAGGAGGCCTCTGTGGGCACTGGCACC
TTCCGCTTCCACTGCCAGCCTGCTGGGAGCAGGAGCTGAGTATTCGCTGCAGGATGCCCCGAGGAGCAACTA
AAGGCGCCACTGAGTGCCCTGCCCTCTGGTCAAGTGGTGAGGCTGTCTTCCCCACGTCCCAGGAGCCCCGTGATG
AGAGTGGAGCTGAAAAAAGAGCAGGACTGAGGGAGCTGGCCGTGCGACTGGGCTTCGGGCCCTGTGCAGAGGAG
CAGGCCTTCTGAGCAGGAGGAAGCAGGTGGTGGCCGCGCCCTGAGGCAGGCCCTGCAGCTGGATGGAGACCTG
CAGGAGGATGAGATCCAGTGGTAGCTATTATGGCCACTGGTGGTGGGATCCGGGCAATGACTTCCCTGTATGGG
CAGCTGGCTGGCCTGAAGGAGCTGGGCCTCTTGATTGCGTCTCTACATCACCGGGCCCTCGGGCTCCACCTGG
GCCTTGGCCAACCTTTATGAGGACCCAGAGTGGTCTCAGAAGGACCTGGCAGGGCCCACTGAGTTGCTGAAGACC
CAGGTGACCAAGAACAAGCTGGGTGTGCTGGCCCCAGCCAGCTGCAGCGGTACCGGCAGGAGCTGGCCGAGCGT
GCCCCGTGGGCTACCCAAGCTGCTTCACCAACCTGTGGGCCCTCATCAACGAGGCGCTGCTGCATGATGAGCCC
CATGATCACAAAGCTCTCAGATCAACGGGAGGCCCTGAGTCACTGGCCAGAACCCTCTGCCCATCTACTGTGCCCTC
AACACCAAAGGGCAGAGCCTGACCACTTTTGAATTTGGGGAGTGGTGCGAGTTCTCTCCCTACGAGGTGCGCTTC
CCCAAGTACGGGGCCTTCATCCCTCTGAGCTCTTTGGCTCCGAGTCTTTTATGGGGCAGCTGATGAAGAGGCTT
CCTGAGTCCCGCATCTGCTTCTTAGAAGGTATCTGGAGCAACCTGTATGCAGCCAACCTCCAGGACAGCTTATAC
TGGGCCTCAGAGCCCAGCCAGTTCTGGGACCGCTGGGTGAGGAACAGGCCAACCTGGACAAGGAGCAGGTCCCC
CTTCTGAAGATAGAAGAACCACCCTCAACAGCCGGCAGRATAGCTGAGTTTTTACCAGTCTTCTGACGTGGCGT
CCACTGGCCAGGCCACACATAATTTCTGCGTGGCCTCCATTTCCACAAAGACTACTTTCAGCATCTCACTTC
TCCACATGGAAGCTACCACTCTGGATGGGCTCCCCAACAGCTGACACCCTCGGAGCCCCACCTGTGCTGCTG
GATGTTGGCTACCTCATCAATACCAGCTGCCTGCCCTCTGCGAGCCCACTCGGGAGCTGGACCTCATCTGTCA
TTGGACTACAACCTCCACGGAGCCTTCCAGCAGTTGCAGCTCCTGGGCCGTTCTGCCAGGAGCAGGGGATCCCG
TTCCACCCATCTCGCCAGCCCCGAGAGCAGCTCCAGCCTCGGGAGTGCCACACCTTCTCCGACCCACCTGC
CCCGGAGCCCCGTGCGGTGCTGCACTTTCCTCTGGTCAAGCAGTCTTCCGGGAGTACTCGGCCCTGGGGTCCGG
CGGACACCCGAGGAGGCGGCAGCTGGGAGGTGAACCTGTCTTCATCGGACTCTCCCTACCACTACACGAAGGTG
ACCTACAGCCAGGAGGACGTGGACAAGCTGCTGCACCTGACACATTACAATGTCTGCAACAACAGGAGCAGCTG
CTGGAGGCTCTGCGCCAGGCAGTGCAGCGGAGGCGGCAGCGCAGGCCCACTGATGGCCGGGGCCCCCTGCCACCC
CTAACTCTCATTATTCCTGGCTGCTGAGTTGCAGGTGGGAACTGTATCACGCAGTGCTTCAGAGCCTCGGGC
TCAGGTGGCACKGTCCAGGGTCCAGGCTGAGGGCTGGGAGCTCCCTTGCGCCTCAGCAGTTTGCAGTGGGGTAA
GGAGGCCAAGCCCATTTGTGTAATACCCAAAACCCCCGGCCTGTGCTGTTTTCCCTTCTGCGCTACCTTGAG
TAGTTGGAGCACTTGATACATCACAGACTCATACAAAAA

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FIGURE 60

MAEAALEAVRSELREFPAAARELCVPLAVPYLDKPPTPLHFYRDWVCPNRPCIIRNALQHWPALQKWSLPYFRAT
VGSTEVSVAVTPDGYADAVRGDRFMMMPAERRLPISFVLVDVLEGRAQHHPGVLYVQKQCSNLPSELQLLPDLESHV
PWASEALGKMPDAVNFWLGEAAAVTSLHKDHYENLYCVVSGEKHFLFHPPSDRPFIPYELYTPATYQLTEEGTFK
VVDEEAMEKAEVSRTCLLTVRVLQAHRLPSKDLVTPSDCYVTLWLPTACSHRLQTRTVKNSSSPVWNQSFHFRIH
RQLKNVMELKVFDQDLVTGDDPVLSVLFDAAGTLRAGEFRRESFSLSPQGEGRLEVEFRLQSLADRGEWLVSNGVL
VARELSCLHVQLEETGDQKSSEHRVQLVVPGSCEGPQEASVGTGTFRFHCPACWEQELSIRLQDAPEEQLKAPLS
ALPSGQVVRVLFPTTSQEPLMRVELKKEAGLRELAVRLGFGPCAEEQAFLSRRKQVVAALRQALQLDGDLDQEDEI
PVVAIMATGGGIRAMTSLYGQLAGLKEGLLDCVSYITGASGSTWALANLYEDPEWSQKDLGAPTELLKTQVTKN
KLGVLAPSQLQRYRQELAERARLGYPSCFTNLWALINEALLHDEPHDHKLSDQREALSHGQNPLPIYCALNTKGQ
SLTTFEFGEWCEFSPEYEVGFPHYGAFIPSEFGSEFFMGQLMKRLEPESRICFLEGIWSNLYAANLQDSLYWASEP
SQFWDWRVRNQANLDKEQVPLLKIEEPPSTAGRIAEFFTDLLTWREPLAQATHNFLRGLHFHKDYFQHPHFSTWKA
TTLDGLPNQLTPSEPHLCLLDVGYLINTSCLPLLQPTRDVLILSLDYNLHGAFQQLQLLGRFCQEQGIPFPPIIS
PSPEEQLPRECHTFSDPTCPGAPAVLHFPLVSDSFREYSAPGVRRTPEEAAAGEVNLSSSDSPYHYTKVTYSQE
DVKLLHLTHYNVCNNQEQLLEALRQAVQRRRQRRPH

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FIGURE 61

CTTCGGGTGTACGTGCTCCGGGATCTTCAGCACCCGCGGCCCATCGCCGTCGCTTGGCTTCTTCTGGACTCAT
CTGCGCCACTTGTCCGCTTCACACTCCGCCGCCATCATGTTGAAGCTCGCGAAGGCAGGTAAGAAATCAAGGTGAC
CCCAAGAAAATGGCTCCTCCTCCAAAGGAGGTAGAAGAAGATAGTGAAGATGAGGAAATGTCAGAAGATGAAGAA
GATGATAGCAGTGGAGAAGAGGTCGTACATACCTCAGAAGAAAGGCAAGAAGGCTGCTGCAACCTCAGCAAAGAAG
GTGGTCGTTTCCCCAACAAAAAGGTTGCAGTTGCCACACCAGCCAAGAAAGCAGCTGTCACTCCAGGCAAAAAG
GCAGCAGCAACACCTGCCAAGAAGACAGTTACACCAGCCAAAGCAGTTACCACACCTGGCAAGAAGGGAGCCACA
CCAGGCAAAGCATTGGTAGCAACTCCTGGTAAGAAGGGTGCTGCCATCCCAGCCAAGGGGGCAAAGAAATGGCAAG
AATGCCAAGAAGGAAGACAGTGATGAAGAGGAGGATGATGACAGTGAGGAGGATGAGGAGGATGACGAGGACGAG
GATGAGGATGAAGATGAAATTGAACAGCAGCGATGAAAGCAGCAGCTGCTGCCCTGCCTCAGAGGATGAGGAC
GATGAGGATGACGAAGATGATGAGGATGACGATGAGGATGAGGATGACTCTGAAGAAGAAGCTATGGAGACT
ACACCAGCCAAAGGAAAGAAAGCTGCAAAAGTTGTTCTGTGAAAGCCAAGAACGTTGGCTGAGGATGAAGATGAA
GAAGAGGATGATGAGGACGAGGATGACGACGACGAAGATGATGAAGATGATGAAGATGATGAGGAG
GAGGAAGAAGAGGAGGAGGAAGAGCCTGTCAAAGAACGACCTGGAAAACGAAAGAAAGGAAATGGCCAAACAGAAA
GCAGCTCCTGAAGCCAAGAAACAGAAAGTGAAGGCACAGAACCAGCTACGGCTTTCAATCTCTTTGTTGGAAAC
CTAAACTTTAACAAATCTGCTCCTGAATTAATAAAGTGGTATCAGCGATGTTTTTGTGTAAGAAATGATCTTGCTGTT
GTGGATGTGAGAATTGGTATGACTAGGAAATTTGGTTATGTGGATTTTGAATCTGCTGAAGACCTGGAGAAAGCG
TTGGAACCTCACTGGTTTGAAGTCTTTGGCAATGAAATTAATACTAGAGAAACCAAGGAAAGACAGTAAGAAA
GAGCGAGATGCCGAGATCAGATTAGTCAGCAAGGATGGGAAAAGTAAAGGGATTGCTTATATTGAATTTAAGACA
GAAGCTGATGCAGAGAAAACCTTTGAAGAAAAGCAGGGAACAGAGATCGATGGGCGATCTATTTCCCTGTACTAT
ACTGGAGAGAAAAGGTCAAAATCAAGACTATAGAGGTGGAAAGAATAGCACTTGGAGTGGTGAATCAAAAACCTCTG
GTTTTAAGCAACCTCTCCTACAGTGCAACAGAAGAACTCTTCAGGAAGTATTTGAGAAAGCAACTTTTATCAAA
GTACCCCAAGAACCAAAATGGCAATCTAAAGGGTATGCATTTATAGAGTTTGCTTCATTGCAAGACGCTAAAGAA
GCTTTAAATTCCTGTAATAAAAGGGAAATTTGAGGGCAGAGCAATCAGGCTGGAGTTGCAAGGACCCAGGGGATCA
CCTAATGCCAGAAGCCAGCCATCCAAAACCTCTGTTTGTCAAAGGCCTGTCTGAGGATACCACTGAAGAGACATTA
AAGGAGTCAATTTGACGGCTCCGTTCCGGGCAAGGATAGTTACTGACCGGGAAGTGGGCTCCTCCAAAGGGTTTGGT
TTTGTAGACTTCAACAGTGAGGAGGATGCCAAGGAGGCCATGGAAGACGGTGAAATTGATGGAAATAAAGTTACC
TTGGACTGGGCCAAACCTAAGGGTGAAGGTGGCTTCGGGGGTCGTGGTGGAGGCAGAGGCGGCTTTGGAGGACGA
GGTGGTGGTAGAGGAGGCCGAGGAGGATTTGGTGGCAGAGGCCGGGGAGGCTTTGGAGGGCGAGGAGGCTTCCGA
GGAGGCAGAGGAGGAGGAGGTGACCACAAGCCACAAGGAAAGAAGACGAAGTTGAATAGCTTCTGTCCCTCTGC
TTTCCCTTTTCCATTTGAAAGAAAGGACTCTGGGGTTTTACTGTTACCTGATCAATGACAGAGCCTTCTGAGGA
CATTCCAAGACAGTATACAGTCTGTGGTCTCCTTGGAAATCCGTCTAGTTAACATTTCAAGGGCAATACCGTGT
TGGTTTTGACTGGATATTCATATAAACTTTTTAAAGAGTTGAGTGATAGAGCTAACCCCTATCTGTAAGTTTTGA
ATTTATATTGTTTCATCCCATGTACAAAACATTTTTTCTAC

MVLKAKAGKNQGDPPKKMAPPPKEVEEDSEDEEMSEDEEDSSGEEVVPQKKGKKAATSAKKVVVSPTKKVAVA
 TPAKKA AVTPGKKA AATPAKKT VTPAKAVTTPGKKGATPGKALVATPGKKGAAIPAKGAKNGKNAKKEDSDEEED
 DDSEDEEDEDDEDEDEDEIEPAAMKAAAAAPASEDEDEDDEDDEDDEDDDDDEEDDSEEEAMETTPAKGKKA AVV
 PVKAKNVAEDEDDEEDEDDEDDDDDEDDEDDEDEEEEEEEEEEPVKEAPGKRKKEMAKQKAAPAEAKKQKVEG
 TEPTTAFNLFVGNLNFNKSAPELKTGISDVFAKNDLAVVDVRIGMTRKFGYVDFESAEDLEKALELTGLKVFNGNE
 IKLEKPKGKDSKKERDARTLLAKNLPIKYVTQDELKEVFEDAAEIRLVSKDGKSKGIAYIEFKTEADA EKTFE EKQ
 GTEIDGRSISLYYTGEKQGNQDYRGKKNSTWSGESKTLVLSNLSYSATEETLQEVFEKATFIKVPQNQNGKSKGY
 AFIEFASFEDAKEALNSCNKREIEGRAIRLELQGPRGSPNARSQPSKTLFVKGLSED TTEETLKE SFDG SVRARI
 VTDRETGSSKGFGFVDFNSEEDAKEAMEDGEIDGNKVTLDWAKPKGEGGFGGRGGGRGGFGGRGGGRGGRGFGG
 RGRGGFGGRGGFRGGRGGGGDHPQGGKTKFE

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FIGURE 63

CTCCCAAAGCAGAATTGCAGCTGCCGCCGCCGCCACCTCCAGGCCACTATGGCGCCTGGGGCTGCCCAGGAGCTT
CAGGCCAAGTTGGCAGAGATCGGAGCTCCGATCCAGGGTAATCGCGAGGAGCTGGTGGAGCGGCTGCAGAGCTAC
ACCCGCCAGACTGGCATCGTGCTGAATCGGCCGTTTGTAGAGGGGAAGATGGGGACAAAGCCGCTCCACCTCCC
ATGTCCGCACAGCTCCCTGGAATTCCCATGCCACCACCACTTTGGGACTCCCCCTCTGCAGCCTCCTCCGCCA
CCCCACCACCTCCACCAGGCCTTGGCCTTGGCTTTCCTATGGCCCACCCACCAAAATTGGGGCCCCCGCCTCCT
CTCCGTGTGGGTGAGCCAGTGGCACTGTGAGAGGAGAGCGGCTGAAGTTGGCTCAGCAGCAGGCGGCATTGCTG
ATGCAGCAGGAGGAGCGTGCCAAGCAGCAGGGAGATCATTGCTGAAGGAACATGAGCTCTTGGAGCAGCAGAAG
CGGGCAGCTGTGTTACTGGAGCAGGAACGACAGCAGGAGATTGCCAAGATGGGCACCCAGTCCCTCGGCCCCCA
CAAGACATGGGCCAGATTGGTGTGCGCACTCCTCTGGGTCTCGAGTAGCTGCTCCAGTGGGCCCAGTGGGCCCC
ACTCTACAGTTTGGCCATGGGAGCCCCCTGTTCCCGGCCTCGTGGTCCCCCACCGCCCCCTGGAGATGAGAAC
AGAGAGATGGATGACCCCTCTGTGGGCCCCAAGATCCCCCAGGCTTTGGAGAAGATCCTGCAGCTGAAGGAGAGC
CGCCAGGAAGAGATGAATTCTCAGCAGGAGGAAGAGGAAATGGAACAGATGCTCGCTCGTCCCTGGGCCAGTCA
GCGTCAGAGACTGAGGAGGACACAGTGTCCGTATCTAAAAAGGAGAAAAACCGGAAGCGTAGGAACCGAAAGAAG
AAGAAAAAGCCCCAGCGGGTGCAGGGGTGTCTCTGAGAGCTCTGGGGACCGGGAGAAAGACTCAACCCGGTCC
CGTGGCTCTGATTCCCCAGCAGCTGATGTTGAGATTGAGTATGTGACTGAAGAACCTGAAATTTACGAGCCCAAC
TTTATCTTCTTTAAGAGGATCTTTGAGGCTTTTAAGCTCACTGATGATGTGAAGAAGGAGAAAGAGAAAGAGCCA
GAGAACTTGACAACTGGAGAACTCTGCAGCCCCCAAGAAGAAGGGATTGGAAGAGGAGCACAAGGACAGTGTG
GATGACAGCAGTGTGACGAGCAGGAAAAGAAGCAGAAAGCCCCCAAGCTGTCCAAGAAGAAGTTGCGCCGAATG
AACCCTTCACTGTGGCTGAACCTCAAGCAGCTGGTGGCTCGGCCCGATGTGCTGGAGATGCACGATGTGACAGCG
CAGGACCCCTAAGCTCTTGGTTACCTCAAGGCCACTCGGAACCTCTGTGCCTGTGCCACGCCACTGGTGTTTTAAG
CGCAAATACCTCAGGGCAAAACGGGGCATTGAGAAGCCCCCTTCGAGCTGCCAGACTCATCAAACGCACAGGC
ATCCAGGAGATGCGAGAGGCCCTGCAGGAGAAGGAAGAACAGAACCATGAAGTCAAAAATGCGAGAGAAAGTT
CGGCTAAGATGGGCAAAATTGACATCGACTACCAGAACTGCATGATGCCTTCTTCAAGTGGCAGACCAAGCCA
AAGCTGACCATCCATGGGGACCTGTACTATGAGGGGAAGGAGTTCGAGACACGACTGAAGGAGAAGAAGCCAGGA
GATCTGCTGATGAGCTAAGGATTTCTTGGGGATGCCAGTAGGACCAAATGCCACAAAGGTCCCTCCCCATGG
CTGATTGCCATGCAGCGATATGGACCACCCCATCGTATCCCAACCTGAAAATCCCTGGGCTGAACCTGCCCATC
CCTGAGAGCTGTTCTTTGGGTACCATGCTGGTGGCTGGGGCAAACCTCCAGTGGATGAGACTGGGAAACCGCTC
TATGGGGACGTGTTTGAACCAATGCTGCTGAATTTAGACCAAGACTGAGGAAGAAGAGATTGATCGGACCCCT
TGGGGGGAACCTGGAACCATCTGATGAAGAATCTCAGAAGAAGAGGAAGAGGAAGAAGTGTGATGAAGACAAACCA
GATGAGACAGGCTTTATTACCCCTGCAGACAGTGGCCTTATCACTCCTGGAGGCTTTTTCATCAGTGCCTGCTGGA
ATGGAGACCCCTGAACCTATTGAGCTGAGGAAGAAGAAGATTGAGGAGGCGATGGACGGAAGTGAGACACCTCAG
CTCTTCACTGTGTTGCCAGAGAAGAGAACAGCCACTGTTGGAGGGGCCATGATGGGATCAACCCACATTTATGAC
ATGTCCACGGTTATGAGCCGGAAGGGCCCGGCTCCTGAGCTGCAAGGTGTGGAAGTGGCGCTGGCGCCTGAAGAG
TTGGAGCTGGATCCTATGGCCATGACCCAGAAGTATGAGGAGCATGTGCGGGAGCAGCAGGCTCAAGTAGAGAAG
GAGGACTTCAGTGACATGGTGGCTGAGCACGCTGCCAAACAGAAGCAAAAAAACGGAAGCTCAGCCCCAGGAC
AGCCGTGGGGGAGCAAGAAATATAAGGAGTTCAAGTTTACGTTCCCTCACACTAGCCCTTTTTTTGGCCCTAC
GTCTGGATGCCTGGGCTTACACAAGAACCACCTCTCCCGCAGTTCCCAAGGACTTGTCAATTCATGTTCTTATT
TTAGACCTGTTTTGTAAATAAAGCTGTTTCCCAAGGAAGAGATGAAAAA

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FIGURE 64

MAPGAAQELQAKLAEIGAPIQGNREELVERLQSYTRQTGIVLNRPVLRGEDGDKAAPPPMSAQLPGIPMPPPPLG
LPPLQPPPPPPPPGLGLGFPMAPPNLGPPLRVGEPVALSEERLKLAAQQQAALLMQQEERAKQQGDHSLK
EHELLEQQKRAAVLLEQERQQEIAKMGTVPVRPPQDMGQIGVRTPLGPRVAAPVGPVGPTPTVLPMGAPVPRRG
PPPPPGDENREMDDPSVGPKIPQALEKILQLKESRQEEMNSQQEEEEEMETDARSSLGQSASETEEDTVSVSKKEK
NRKRRNRKKKKKQQRVRGVSSSESSGDREKDSRSGSDSPAADVEIEYVTEPEIYEPNFIFFKRIFEAFKLTDD
VKKEKEKEPEKLDKLENSAAPKKKGFEHHKSDDDSSDDEQEKKEAPKLSKKKLRRMNRTVAELKQLVARPD
VVMHDVTAQDPKLLVHLKATRNSVPVRHWCFFKRKYLGKRGIEKPPFELPDFIKRTGIQEMREALQEKEEQKT
MKSKMREKVRPKMGKIDIDYQKLHDAFFKWQTKPKLTIHGDIYYEGKEFETRLKEKKPGDLSDELRI SLGMPVGP
NAHKVPPPWLIAMQRYGPPPSYPNLKIPGLNSPIPESCSFGYHAGGWGKPPVDETGKPLYGDVFGTNAAEFQTKT
EEEEIDRTPWGELEPSDEESSEEEEEESDEDKPDETGFI TPADSGLITPGGFSSVPAGMETPELIELRKKKIEE
AMDGSETPQLFTVLPEKRTATVGGAMMGSTHIYDMSTVMSRKGAPELQGVEVALAPEELELDPAMMTQKYEEHV
REQQAQVEKEDFSDMVAEHAAKQKQKKRKAQFQDSRGGSKKYKEFKF

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FIGURE 65

CGAAAAAGAGGGGAAGAGTATTAAAGACCATTCTGGCTGGGCAGGGCACTCTCAGCAGCTCAACTGCCCAGCG
TGACCAGTGGCCACCTCTGCAGTGTCTTCCACAACCTGGTCTTGACTCGTCTGCTGAACAAATCCTCTGACCTCA
GGCCGGCTGTGAACGTAGTTCCTGAGAGATAGCAAACATGCCCAACAGTGAGCCCGCATCTCTGCTGGAGCTGTT
CAACAGCATCGCCACACAAGGGGAGCTCGTAAGGTCCCTCAAAGCGGGAAATGCGTCAAAGGATGAAATTGATT
TGCAGTAAAGATGTTGGTGTGTCATTAAAAATGAGCTACAAAGCTGCCGCGGGGAGGATTACAAGGCTGACTGTCC
TCCAGGGAACCCAGCACCTACCAGTAATCATGGCCAGATGCCACAGAAGCTGAAGAGGATTTTGTGGACCCATG
GACAGTACAGACAAGCAGTGCAAAAGGCATAGACTACGATAAGCTCATTGTTTCGGTTTGGAAAGTAGTAAATTTGA
CAAAGAGCTAATAAACCGAATAGAGAGAGCCACCGGCCAAAGACCACACCACTTCCTGCGCAGAGGCATCTTCTT
CTCACACAGAGATATGAATCAGGTTCTTGATGCCTATGAAAATAAGAAGCCATTTATCTGTACACGGGCCGGGG
CCCCCTTCTGAAGCAATGCATGTAGGTACCTCATTCCATTTATTTTACAAAGTGGCTCCAGGATGTATTTAA
CGTGCCCTTGGTCATCCAGATGACGGATGACGAGAAGTATCTGTGAAGGACCTGACCTTGGACCAGGCCTATGG
CGATGCTGTTGAGAATGCCAAGGACATCATCGCTGTGGCTTTGACATCAACAAGACTTTCATATTCTCTGACCT
GGACTACATGGGGATGAGCTCAGGTTTCTACAAAAATGTGGTGAAGATTCAAAGCATGTTACCTTCAACCÀAGT
GAAAGGCATTTTCGGCTTCACTGACAGCGACTGCATTGGGAAGATCAGTTTTCTGCCATCCAGGCTGCTCCCTC
CTTCAGCAACTCATTCCCACAGATCTTCCGAGACAGGACGGATATCCAGTGCCTTATCCCATGTGCCATTGACCA
GGATCCTTACTTTAGAATGACAAGGGACGTCGCCCCAGGATCGGCTATCCTAAACCAGCCCTGTTGCACTCCAC
CTTCTTCCCAGCCCTGCAGGGCGCCCÀGACCAAAATGAGTGCCAGCGACCCAAACTCCTCCATCTTCTCACCAG
CACGGCCAAGCAGATCAAACCAAGGTCAATAAGCATGCGTTTTCTGGAGGGAGAGACACCATCGAGGAGCACAG
GCAGTTTGGGGCAACTGTGATGTGGACGTGTCTTTCATGTACCTGACCTTCTTCTCGAGGACGACGACAAGCT
CGAGCAGATCAGGAAGGATTACACCAGCGGAGCCATGCTCACCGGTGAGCTCAAGAAGGCACTCATAGAGGTTCT
GCAGCCCTTGATCGCAGAGCACCAGGCCCGGCGCAAGGAGGTCACGGATGAGATAGTGAAGAGTTTCATGACTCC
CCGGAAGCTGTCTTCGACTTTCAGTAGCACTCGTTTTACATATGCTTATAAAAGAAGTGATGTATCAGTAATGT
ATCAATAATCCCAGCCCAGTCAAAGCACCGCCACCTGTAGGCTTCTGTCTCATGGTAATTACTGGGCCTGGCCTC
TGTAAGCCTGTGTATGTTATCAATACTGTTTCTTCTGTGAGTTCCATTATTTCTATCTTATGGGCAAAGCAT
TGTGGGTAATTGGTGTGGCTAACATTGCATGGTCCGATAGAGAAGTCCAGCTGTGAGTCTCTCCCCAAAGCAGC
CCCACAGTGGAGCCTTCGGCTGGAAGTCCATGGGCCACCTGTTCTTGTCCATGGAGGACTTCCGAGGGTTCCAA
GTATACTCTTAAAGACCCACTCTGTTTAAAAATATATATTCTATGTATGCGTATATGGAATTGAAATGTCATTATT
GTAACCTAGAAAAGTGCTTTGAAATATTGATGTGGGGAGGTTTATTGAGCACAAAGATGTATTTAGCCCATGCCCC
CTCCCCAAAAGAAATTGATAAGTAAAAGCTTCGTTATACATTTGACTAAGAAATCACCAGCTTTAAAGCTGCTT
TTAACAATGAAGATTGAACAGAGTTCAGCAATTTTGATTAAATTAAGACTTGGGGGTGAAACTTTCCAGTTTACT
GAACTCCAGACCATGCATGTAGTCCACTCCAGAAATCATGCTCGCTTCCCTTGGCACACCAGTGTTCTCCTGCCA
AATGACCCTAGACCCTCTGTCTGCAGAGTCAGGGTGGCTTTTCCCTGACTGTGTCCGATGCCAAGGAGTCCCTG
GCCTCCGCAGATGCTTCATTTTGACCTTGGCTGCAGTGGAAGTCAGCACAGAGCAGTCCCTGGCTGTGTCTCTG
GACGGGTGGACTTAGCTAGGGAGAAAGTCGAGGCAGCAGCCCTCGAGGCCCTCACAGATGTCTAGGCAGGCCTCA
TTTCATCACGCAGCATGTGCAGGCCTGGAAGAGCAAAGCCAAATCTCAGGGAAGTCCTTGGTTGATGTATCTGGG
TCTCCTCTGGAGCACTCTGCCCTCTGTACCCAGTAGAGTAAATAAACTTCTTGGCTCCTAAAAA

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FIGURE 66

MPNSEPASLLELFNSIATQGELVRSCLKAGNASKDEIDSAVKMLVSLKMSYKAAAGEDYKADCPPGNPAPTSNHGP
DATEAEEDFVDPWTVQTSSAKGIDYDKLIVRFGSSKIDKELINRIERATGQRPHHFLRRGIFFSHRDMNQVLDAY
ENKKPFYLYTGRGPSSEAMHVGHLPFIFTKWLQDVFNVLVIQMTDDEKYLWKDLTLDQAYGDAVENAKDIIAC
GFDINKTFIFSDLDYMGMSGFGYKNVVKIQKHVTFNQVKGIFGFTDSDCIGKISFPQIAAPSFSNSFPQIFRDR
TDIQCLIPCAIDQDPYFRMTRDVAPRIGYPKALLHSTFFPALQGAQTKMSASDPNSSIFLTD TAKQIKTKVKNH
AFSGGRDTIEEHRQFGGNCVDVVSFMYLTFFLEDDDKLEQIRKDYTSGAMLTGELKKALIEVLQPLIAEHQARRK
EVTDEIVKEFMTPRKLSFDFQ

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FIGURE 67

GCGGAGCGTGTGAGCAGTACTGCGGCCTCCTCTCCTCTCCTAACCTCGCTCTCGCGGCCTACCTTTACCCGCCCG
CCTGCTCGGCGACCAGCGGGGATCCTCCCCAGCCGCAAGTCCACGAAGAAAGCAACGAATGAAAATTATGAAGA
CAACGAGAAGTCAGACTCCTCCGGGTCGCGCTCCAGCTGCTTCGGCTTCGTGCGCTACTCTGTGAAGTCCGGGGA
GAGATCTCGAGTCAAGATTAAGACCTTAACCCACCAACCTGCTTTCGGACACCCCCCGGGCCGGCCGCTGTCT
GTCCCCCTTCTCCATCGCCCTCTCCAGAAAGCTCCGGTGTCTGGACCAGCTAGAGTCTGAGAAAGAGGAGAGGCG
CGAACGCCACTCCAAAAAGAGAAGGGTTAAAGAGGGCAACCCTAACGATACGCTTGACTTTCTGTGGCTGGGAAC
ACCTTCCACCATGACCACCTCAGCAAGTTCCTCACTTAATAAAGGCATCAAGCAGGTGTACATGTCCCTGCCTCA
GGGTGAGAAAGTCCAGGCCATGTATATCTGGATCGATGGTACTGGAGAAGGACTGCGCTGCAAGACCCGGACCCT
GGACAGTGAGCCCAAGTGTGTGGAAGAGTTGCCTGAAGTGGAAATTCGATGGCTCCAGTACTTTACAGTCTGAGGG
TTCCAACAGTGACATGTATCTCGTGCCCTGTGCCATGTTTCGGGACCCCTTCCGTAAGGACCTTAACAAGCTGGT
GTTATGTGAAGTTTTCAAGTACAATCGAAGGCCTGCAGAGACCAATTTGAGGCACACCTGTAAACGGATAATGGA
CATGGTGAGCAACCAGCACCCCTGGTTTGGCATGGAGCAGGAGTATACCCTCATGGGGACAGATGGGCACCCCTT
TGGTTGGCCTTCCAACGGCTTCCAGGGCCCCAGGGTCCATATTACTGTGGTGTGGGAGCAGACAGAGCCTATGG
CAGGGACATCGTGGAGGCCATTACCGGGCTGCTTGTATGCTGGAGTCAAGATTGCGGGGACTAATGCCGAGGT
CATGCCTGCCAGTGGGAATTCAGATTGGACCTTGTGAAGGAATCAGCATGGGAGATCATCTCTGGGTGGCCCCG
TTTCATCTTGCATCGTGTGTGTGAAGACTTTGGAGTGATAGCAACCTTTGATCCTAAGCCATTCTGGGAAGT
GAATGGTGCAGGCTGCCATACCAACTTCAGCACCAAGGCCATGCGGGAGGAGAAATGGTCTGAAGTACATCGAGGA
GGCCATTGAGAACTAAGCAAGCGGCACCACTACCATCCGTGCCTATGATCCCAAGGGAGGCCGAGACAATGC
CCGACGTCTAACTGGATTCCATGAAACCTCCAACATCAACGACTTTTCTGCTGTTGTAGCCAATCGTAGCGCCAG
CATACGCATTCCCCGGACTGTTGGCCAGGAGAAGAAGGGTTACTTTGAAGATCGTCGCCCTCTGCCAACTGCGA
CCCCTTTTCGGTGACAGAAGCCCTCATCCGCACGTGTCTTCTCAATGAAACCGCGATGAGCCCTTCCAGTACAA
AAATTAAGTGGACTAGACCTCCAGCTGTTGAGCCCTCCTAGTTCTTCATCCCACTCCAACCTCTCCCCCTCTCC
CAGTTGTCGCCGATTGTAACCTCAAAGGGTGGAAATCAAGGTCGTTTTTTTTCATTCCATGTGCCAGTTAATCTTG
CTTTCTTTGTTTGGCTGGGATAGAGGGGTCAAGTTATTAATTTCTTCACACCTACCCTCCTTTTTTTCCCTATCA
CTGAAGCTTTTTAGTGCAATTAGTGGGGAGGAGGGTGGGGAGACATAACCACTGCTTCCATTTAATGGGGTGCACC
TGTCCAATAGCGTAGCTATCCGGACAGAGCACGTTTGCAGAAGGGGGACTCTTCTCCAGGTAGCTGAAAGGGG
AAGACCTGACGTACTCTGGTTAGGTTAGGACTTGCCCTCGTGGTGGAACCTTTTCTAAAAAGTTATAACCAACT
TTTCTATTAAAAAGTGGGAATTAGGAGAGAAGGTAGGGGTGGGAATCAGAGAGAATGGCTTTGGTCTCTTGCTTG
TGGGACTAGCCTGGCTTGGGACTAAATGCCCTGCTCTGAACACGAAGCTTAGTATAAACTGATGGATATCCCTAC
CTTGAAAGAAGAAAAGTTCTTACTGCTTGGTCTTGATTTATCACACAAAGCAGAATAGTATTTTTATATTTAA
ATGTAAAGACAAAAACTATATGTATGGTTTTGTGGATTATGTGTGTTTTGCTAAAGGAAAAAACCATCCAGGTC
ACGGGGCACCAAATTTGAGACAAATAGTCGGATTAGAAATAAAGCATCTCATTTTGAGTAGAGAGCAAGGGAAGT
GGTTCTTAGATGGTGATCTGGGATTAGGCCCTCAAGACCCTTTTGGGTTTCTGCCCTGCCACCCTCTGGAGAAG
GTGGGCACCTGGATTAGTTAACAGACGACACGTTACTAGCAGTCACCTGATCTCCGTGGCTTTGGTTTAAAAGACA
CACTTGTCCACATAGGTTTAGAGATAAGAGTTGGCTGTCAACTTGAGCATGTTACTGACAGAGGGGGTATTGGG
GTTATTTTCTGGTAGGAATAGCATGTCACTAAAGCAGGCCCTTTTGATATTAAATTTTTTAAAAAGCAAAATTATA
GAAGTTTAGATTTTAATCAAATTTGTAGGGTTTCTAGGTAATTTTACAGAATTGCTTGTGTTGCTTCAACTGTCT
CCTACCTCTGCTCTTGGAGGAGATGGGGACAGGGCTGGAGTCAAAACACTTGTAATTTTGATCTTGATGTCTTT
GTTAAGACTGCTGAAGAATTATTTTTTTCTTTTATAATAAGGAATAAACCCACCTTTATTCCTTCATTTCATC
TACCATTTTCTGGTTCTTGTGTTGGCTGTGGCAGGCCAGCTGTGGTTTTCTTTTGCCATGACAACCTCTAATTGC
CATGTACAGTATGTTCAAAGTCAAATACTCCTCATTGTAAACAACTGTGTAAGTCCCAAGCAGCACTTATA
AATCAGCCTAACATAA

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FIGURE 68

MTTSASSHLNKGIKQVYMSLPQGEKVQAMYIWIDGTGEGLRCKTRTLDSEPKCVEELPEWNFDGSSTLQSEGSNS
DMYLVPAAMFRDPFRKDPNKLVLCEVFKYNNRPAETNLRHTCKRIMDMVSNQHPWFGMEQEYTLMGTDGHPFGWP
SNGFPGPQGPYYCGVGADRAYGRDIVEAHYRACLYAGVKIAGTNAEVMQAQWFEQIGPCEGISMGDHLWVARFIL
HRVCEDFGVIATFDPKPIPGNWNAGAGCHTNFSTKAMREENGLKYIEEAIEKLSKRHQYHIRAYDPKGGLDNARRL
TGFHETSNINDFSAGVANRSASIRIPRTVGQEKKGYPEDRRPSANCDPFSVTEALIRTCLLNETGDEPFQYKN

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FIGURE 69

TGCTGCAGCCGCTGCCGCCGATTCCGGATCTCATTGCCACGCGCCCCGACGACCGCCCGACGTGCATTCCCGAT
TCCTTTTGGTTCCAAGTCCAATATGGCAACTCTAAAGGATCAGCTGATTTATAATCTTCTAAAGGAAGAACAGAC
CCCCAGAATAAGATTACAGTTGTTGGGGTTGGTGCTGTTGGCATGGCCTGTGCCATCAGTATCTTAATGAAGGA
CTTGGCAGATGAAC TTGCTCTTGTGATGTCATCGAAGACAAATTGAAGGGAGAGATGATGGATCTCCAACATGG
CAGCCTTTTCCTTAGAACACCAAAGATTGTCTCTGGCAAAGACTATAATGTAAC TGCAAACCTCCAAGCTGGTCAT
TATCACGGCTGGGGCACGTCAGCAAGAGGGAGAAAGCCGTCTTAATTTGGTCCAGCGTAACGTGAACATATTTAA
ATTCATCATTCCTAATGTTGTAAAATACAGCCCGAACTGCAAGTTGCTTATTGTTTCAAATCCAGTGGATATCTT
GACCTACGTGGCTTGGAAGATAAGTGGTTTTCCCAAAAACCGTGTTATTGGAAGTGGTTGCAATCTGGATT CAGC
CCGATTCCGTTACCTGATGGGGGAAAGGCTGGGAGTTCACCCATTAAGCTGTCATGGGTGGGTCCTTGGGGAACA
TGGAGATTCCAGTGTGCCCTGTATGGAGTGGAAATGAATGTTGCTGGTGTCTCTCTGAAGACTCTGCACCCAGATTT
AGGGACTGATAAAGATAAGGAACAGTGGAAAGAGGTT CACAAGCAGGTGGTTGAGAGTGCTTATGAGGTGATCAA
ACTCAAAGGCTACACATCC TGGGCTATTGGACTCTCTGTAGCAGATTTGGCAGAGAGTATAATGAAGAATCTTAG
GCGGGTGCACCCAGTTTCCACCATGATTAAGGGTCTTTACGGAAATAAAGGATGATGTCTTCCTTAGTGTTCTTG
CATTTTGGGACAGAAATGGAATCTCAGACCTTGTGAAGGTGACTCTGACTTCTGAGGAAGAGGCCCGTTTGAAGAA
GAGTGCAGATACACTTTGGGGGATCCAAAAGGAGCTGCAATTTTAAAGTCTTCTGATGT CATATCATTTCACTGT
CTAGGCTACAACAGGATTCTAGGTGGAGGTTGTGCATGTTGTCCTTTTATCTGATCTGTGATTAAAGCAGTAAT
ATTTTAAGATGGACTGGGAAAAACATCAACTCCTGAAGTTAGAAATAAGAATGGTTTGTA AAATCCACAGCTATA
TCCTGATGCTGGATGGTATTAATCTTGTGTAGTCTTCAACTGGTTAGTGTGAAATAGTTCTGCCACCTCTGACGC
ACCACTGCCAATGCTGTACGTACTGCATTTGCCCTTGAGCCAGGTGGATGTTTACCGTGTGTTATATAACTTCC
TGGCTCCTTCACTGAACATGCCTAGTCCAACATTTTTTCCAGTGAGTCACATCCTGGGATCCAGTGTATAAAATC
CAATATCATGTCTTGTGCATAATCTTCCAAAGGATCTTATTTTGTGA ACTATATCAGTAGTGTACATTACCATA
TAATGTAAAAAGATCTACATACAAACAATGCAACCAACTATCCAAGTGTTATACCAACTAAAACCCCAATAAAC
CTTGAACAGTG

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FIGURE 70

MATLKDQLIYNLLKEEQTPQNKITVVGVGAVGMACAISILMKDLADELALVDVIEDKLKGEMMDLQHGSFLRTP
KIVSGKDYNVTANSKLVIITAGARQQEGESRLNLVQRNVNIFKFIIPNVVKYSPNCKLLIVSNPVDILTYVAWKI
SGFPKNRVIGSGCNLDSARFRYLMGERLGVHPLSCHGWVLGEHGDSSVPVWSGMNVAGVSLKTLHPDLGTDKDKE
QWKEVHKQVVESAYEVIKLGKGYTSWAIGLSVADLAESIMKNLRRVHPVSTMIKGLYGIKDDVFLSVPCILGQNGI
SDLVKVTLTSEEEARLKKSADTLWGIQKELQF

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FIGURE 71

CCGCAGCGCCGGAGTCAAACGGTTCCCGGCCAGTCCCGTCTGCAGCAGTCTGCCTCCTCTTTCAACATGACAG
ATGCCGCTGTGTCTTCGCCAAGGACTTCCTGGCAGGTGGAGTGGCCGCAGCCATCTCCAAGACGGCGGTAGCGC
CCATCGAGCGGGTCAAGCTGCTGCTGCAGGTGCAGCATGCCAGCAAGCAGATCACTGCAGATAAGCAATACAAAG
GCATTATAGACTGCGTGGTCCGTATTCCCAAGGAGCAGGGAGTTCTGTCCTTCTGGCGCGGTAACCTGGCCAATG
TCATCAGATACTTCCCCACCCAGGCTCTTAACCTCGCCTTCAAAGATAAATACAAGCAGATCTTCCTGGGTGGTG
TGGACAAGAGAACCAGTTTTGGCGCTACTTTGCAGGGAATCTGGCATCGGGTGGTGCCGCAGGGGCCACATCCC
TGTGTTTTGTGTACCTCTTGATTTGCCCCGTACCCGTCTAGCAGCTGATGTGGGTAAAGCTGGAGCTGAAAGGG
AATTCCGAGGCCTCGGTGACTGCCTGGTTAAGATCTACAAATCTGATGGGATTAAGGGCCTGTACCAAGGCTTTA
ACGTGTCTGTGCAGGGTATTATCATCTACCGAGCCGCTACTTCGGTATCTATGACACTGCAAAGGGAATGCTTC
CGGATCCCAAGAACACTCACATCGTCATCAGCTGGATGATCGCACAGACTGTCACTGCTGTTGCCGGGTTGACTT
CCTATCCATTGACACCGTTCGCCGCCGCATGATGATGCAGTCAGGGCGCAAAGGAAGTGAATCATGTACACAG
GCACGCTTGACTGCTGGCGGAAGATTGCTCGTGATGAAGGAGGCAAAGCTTTTTTCAAGGGTGCATGGTCCAATG
TTCTCAGAGGCATGGGTGGTGCTTTTGTGCTTGTCTGTATGATGAAATCAAGAAGTACACATAAGTTATTTTCCT
AGGATTTTTCCCCCTGTGAACAGGCATGTTGTATTCTATAACACAATCTTGAGCATTTCTGACAGACTCCTGGCT
GTCAGTTTCTCAGTGGCAACTACTTTACTGGTTGAAAATGGGAAGCAATAATATTCATCTGACCAGTTTTCCTCT
AAAGCCATTTCCATGATGATGATGATGGGACTCAATTGTATTTTTTATTTTCAGTCACTCCTGATAAATAACAAAT
TTGGAGAAATAAAAAATATCTAAAT

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FIGURE 72

MTDAAVSFAKDFLAGGVAAAI SKTAVAPIERVKLLLQVQHASKQITADKQYKGI IDCVV RIPKEQGVLSFWRGNL
ANVIRYFPTQALNFAFKDKYKQIFLGGVDKRTQFWRYFAGN LASGGAAGATSLCFVYPLDFARTRLAADV GKAGA
EREFRLGDCLVKIYKSDGIKGLYQGFNVSVQGIIYRAAYFGIYDTAKGMLPDPKNTHIVISWMIAQTVTAVAG
LTSYPFDTVRRRMMMQSGRKGTDIMYTGTLDCWRKIARDEGGKAFFKGAWSNVLRGMGGA FVLVLYDEIKKYT

AGTATGTGTGGTTGGGGAATTCATGTGGAGGTCAGAGTGGGAAGCAGGTGTGAGAGGGTCCAGCAGAAGGAAACAT
GGCTGCCAAAGTGTGTTGAGTCCATTGGCAAGTTTGGCCTGGCCTTAGCTGTTGCAGGAGGCGTGGTGAACCTCTGC
CTTATATAATGTGGATGCTGGGCACAGAGCTGTCTCTTTGACCGATTCCGTGGAGTGCAGGACATTGTGGTAGG
GGAAGGGACTCATTTTCTCATCCCGTGGGTACAGAAACCAATTATCTTTGACTGCCGTTCTCGACCACGTAATGT
GCCAGTCATCACTGGTAGCAAAGATTACAGAATGTCAACATCACACTGCGCATCTCTTCCGGCCTGTGCGCA
CCAGCTTCTCTGCGATCTTCACCAGCATCGGAGAGGACTATGATGAGCGTGTGCTGCCGTCCATCACAACCTGAGAT
CCTCAAGTCAGTGGTGGCTCGCTTTGATGCTGGAGAACTAATCACCAGAGAGAGCTGGTCTCCAGGCAGGTGAG
CGACGACCTTACAGAGCGAGCCGCCACCTTTGGGCTCATCTCGGATGACGTGTCTTTGACACATCTGACCTTCGG
GAAGGAGTTACAGAAGCGGTGGAAGCCAAACAGGTGGCTCAGCAGGAAGCAGAGAGGGCCAGATTGTGGTGGGA
AAAGGCTGAGCAACAGAAAAAGGCGGCCATCATCTCTGCTGAGGGCGACTCCAAGGCAGCTGAGCTGATTGCCAA
CTCACTGGCCACTGCAGGGGATGGCTGATCGAGCTGCGCAAGCTGGAAGCTGCAGAGGACATCGCGTACCAGCT
CTCACGCTCTCGGAACATCACCTACCTGCCAGCGGGGAGTCCGTGCTCTCCAGCTGCCCCAGTGGAGGGCCCCAC
CCTGCCTGCACCTCCGCGGGCTGACTGGGCCACAGCCCCGATGATTCTTAAACACAGCCTTCTCTTGCTCCCACC
CCAGAAATCACTGTGAAATTTTCATGATTGGCTTAAAGTGAAGGAAATAAAGGTAAAATCACTTCAGATCTCTAAT
TAGTCTATCAAAATGAAACTCTTTTCATTCTTCTCACATCCATCTACTTTTTTATCCACCTCCCTACCAAAAATTGC
CAAGTGCCATATGCAAACCAGCTTTAGGTCCCAATTTCGGGGCCTGCTGGAGTTCGGGCCTGGGCACCAGCATTGG
CAGCACGCAGGCGGGGCGAGTATGTGATGGACTGGGGAGCACAGGTGTCTGCCCTAGATCCACGTGTGGCCTCCGTC
CTGTCACTGATGGAAGGTTTGCGGATGAGGGCATGTGCGGCTGAACCTGAGAAGGCAGGCCTCCGTCTTCCCAGCG
GTTCTGTGTCAGATGCTGCTGAAGAGAGGTGCCGGGGAGGGGCAGAGAGGAAGTGGTCTGTCTGTTACCATAAGT
CTGATTCTCTTTAACTGTGTGACCAGCGGAAACAGGTGTGTGTAACCTGGGCACAGATTGAAGAACTGCCCCCTG
TTGAGGTGGGTGGGCCTGACTGTTGCCCCCCAGGGTCTCTAAACTTGGATGGACTGTATAGTGAGAGAGGAGGC
CTGGACCGAGATGTGAGTCTGTTGAAGACTTCTCTCTACCCCCACCTTGGTCCCTCTCAGATACCCAGGTGGA
ATTCCAACCTGAAGGATGTCATCTCTGCTGGGGCTGAACATGCTGCCAAAGACGTGTCCGACCTACGTTCTCTGGC
CCCCCTCGTTGAGAGACTGCCCTTCTCACGGGCTCTATGCCTGCACTGGGAAGGAAACAAATGTGTATAAACTGCT
GTCAATAAAATGACACCCAGACCTTCC

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FIGURE 74

MAAKVFESIGKFGALAVAGGVVNSALYNVDAGHRAVIFDRFRGVQDIVVGEGTHFLIPWVQKPIIFDCRSRPRN
VPVITGSKDLQNVNITLRILFRPVASQLPRIFTSIGEDYDERVLPSITTEILKSVVARFDAGELITQRELVSQRV
SDDLTERAATFGLILDDVSLTHLTFGKEFTEAVEAKQVAQQEAERARFVVEKAEQQKAAIISAEGDSKAAELIA
NSLATAGDGLIELRKLEAAEDIAYQLSRSRNITYLPAGQSVLLQLPQ

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FIGURE 75

GGCACGAGGGGAGCGCTTGTGCTGCTCGTACTCCTCCATTTATCCGCCATGATAAGTGCCAGCCGAGCTGCA
GCAGCCCGTCTCGTGGGCGCCGAGCCTCCCGGGGCCCTACGGCCGCCGCCACCAGGATAGCTGGAATGGCCTT
AGTCATGAGGCTTTTAGACTTGTTCAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT
GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT
GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTGGAATGCCGGCCAAGCGACAG
GCTGTACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA
CAGAAAGACATTAAAAATGTTCCCTTTAAAAATGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG
CGCACAGCAAAAAATGTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCTATGGTCTAGAC
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGAACCTTTTGATATTTCTATCCTGGAATTCAG
AAAGGAGTATTTGAGGTGAAATCCACAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA
CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTGACTAAAGACAACATGGCACTTCAGAGGGTA
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACCTCTCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA
ATGGATTCTTCTGGACCCAAGCATTGAAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGCACTGATCTA
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG
ATTCTTGTGGGTGGCATGACTAGGATGCCAAGGTTGAGCAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTGAGGAGGTGTGTTGGCCGGCGATGTCACG
GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAACTCTAGGAGGTGTCTTTACCAAACCTTATT
AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGA
ATTAAAGTGTGTCAGGGTGAAGAGAGATGGCTGGAGACAACAACTCCTTGGACAGTTTACTTTGATTGGAATT
CCACCAGCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGAIGCCAAATGGGATAGTACATGTTTCT
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT
ATGGCTGAAGGAATCATTACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC
AACAAGCTGAAAGAAGAGATTTCAAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAACAGGAGAAAATATT
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTGAAATGGCATACAAAAAGATGGCATCTGAG
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAGTAATAATAGCAG
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCTGAGCAGAAATGGCGAAGCTTC
AGTCTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCTTAATTTGTAATTTAGTGACCATTAGCTAGT
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCACAATATTCTATGTCCCTAGCCTGTCAATTTTCAGC
TGCATGTAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCTTCAACTGAGGCCTTGCAA
GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAACTTAGCTATTTATATTA
GGTACAGCTATTAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTTCTAGCTACCTT
CTGCCCTGTGCTGGCACCTACATCCTTGATGATTGTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAATA
AATACAGAAAGCATCTTGAAAAA

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FIGURE 76

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGR TAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIADVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQVRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVLVGGMTRMPKVQQTVDLFGRA PSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVS AKDKGTGREQQIVIQSSGGLSKDDIENMVKN AEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKL FEMAYKKMASEREGSGSSGTGEQKEDQK
EEKQ

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FIGURE 77

GGCACGAGGGGAGCGCTTGTGCTGCCTCGTACTCCTCCATTATCCGCCATGATAAGTGCCAGCCGAGCTGCA
GCAGCCCCTCTCGTGGGCGCCGAGCCTCCCGGGGCCCTACGGCCGCCGCCACCAGGATAGCTGGAATGGCCTT
AGTCATGAGGCTTTTAGACTTGTGTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT
GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT
GCCAGAACCACCCCTTCAGTTGTGGCCCTTACAGCAGATGGTGAGCGACTTGTGGAATGCCGGCCAAGCGACAG
GCTGTACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA
CAGAAAGACATTAAAAATGTCCCTTTAAAAATGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTTGATGAAGATGAAAGAGACTGCAGAAAAATTACTTGGGG
CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCACAGCTGCTGCTCTTGCCATAGGTCTAGAC
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGGAACCTTTGATATTTCTATCCTGGAATTCAG
AAAGGAGTATTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCCTTGTA
CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTGACTAAAGACAACATGGCATTGAGAGGGTA
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACCTCTCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA
ATGGATTTCTTGGACCCAAGCATTGGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGCTACTGATCTA
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAAGTCAGCAAGAGTGACATAGGAGAAGTG
ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTGAGCAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTGAGGAGGTGTGTTGGCCGGCGATGTACG
GATGTGCTGCTCCTTGATGTCACTCCCCGTGCTCTGGGTATTGAACTCTAGGAGGTGTCTTTACCAAACCTTATT
AATAGGAATAACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGA
ATTAAAGTGTGTCAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGGACAGTTTACTTTGATTGGAATT
CCACCAGCCCTCGTGGAGTTCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT
GAAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACC GGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT
ATGGCTGAAGGAATCATTACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC
AACAAGCTGAAGAAGAGATTTCACAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAACAGGAGAAAAATATT
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTGAAATGGCATACAAAAAGATGGCATCTGAG
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAGTAATAATAGCAG
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGCGAACTTC
AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCTTAAATTTGTAAATTTAGTGACCATTAGCTAGT
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCACAATATTCTATGTCCCTAGCCTGTCAATTTTCAGC
TGCAITGTAAGGAGGAGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCTTCAACTGAGGCCTTGCAA
GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAACTTAGCTATTTATATTA
GGTACAGCTATTAACAAGGTAGGAATGAGGCTAGACCTTTAACTCCCTAAGGCATACTTTTCTAGCTACCTT
CTGCCCTGTGCTGGCACCTACATCCTTGATGATTGTTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAATA
AATACAGAAAGCATCTTGAAAAA

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FIGURE 78

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTNSCVAVMEGKRA
KVLNAEGARTTPSVVAFADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVFPKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIAYVDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVIIVGGMTRMPKVQQTVDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSADKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFE MAYKKMASEREGSGSSGTGEQKEDQK
EEKQ

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FIGURE 79

GTGGTGGGACTCGCGTCGCGGCCGCGGAGACGTGAAGCTCTCGAGGCTCCTCCCGCTGCGGGTCGGCGCTCGCCC
TCGCTCTCCTCGCCCTCCGCCCCGGCCCCGGCCCCGGCGCCGCGCCATGGAGAAGACTGAGCTGATCCAGAAGGCCA
AGCTGGCCGAGCAGGCCGAGCGCTACGACGACATGGCCACCTGCATGAAGGCAGTGACCGAGCAGGGCGCCGAGC
TGTCCAACGAGGAGCGCAACCTGCTCTCCGTGGCCTACAAGAAGCTGGTCGGGGGCCGAGGTCCGCCTGGAGGG
TCATCTCTAGCATCGAGCAGAAGACCGACACCTCCGACAAGAAGTTGCAGCTGATTAAGGACTATCGGGAGAAAG
TGGAGTCCGAGCTGAGATCCATCTGCACCACGGTGCTGGAATTGTTGGATAAAATATTTAATAGCCAATGCAACTA
ATCCAGAGAGTAAGGTCTTCTATCTGAAAATGAAGGGTGATTACTTCCGGTACCTTGCTGAAGTTGCGTGTGGTG
ATGATCGAAAACAAACGATAGATAATTCCCAAGGAGCTTACCAAGAGGCATTTGATATAAGCAAGAAAGAGATGC
AACCACACACCCAATCCGCCTGGGGCTTGCTCTTAACCTTTTCTGTATTTTACTATGAGATTCTTAATAACCCAG
AGCTTGCCCTGCACGCTGGCTAAAACGGCTTTTGATGAGGCCATTGCTGAACCTTGATACACTGAAGACTCAT
ACAAAGACAGCACCCCTCATCATGCAGTTGCTTAGAGACAACCTAACACTTTGGACATCAGACAGTGCAGGAGAAG
AATGTGATGCGGCAGAAGGGGCTGAAAAC~~TAAAT~~TCCATACAGGGTGTCATCCTTCTTTCCTTCAAGAAACCTTTT
TACACATCTCCATTCCCTTATCCACTTGGATTTCCTATAGCAAAGAAACCCATTTCATGTGTATGGAATCAACTGT
TTATAGTCTTTTACACTGCAGCTTTGGGAAAACCTTCATTCCCTTGATTGTGTTTGTCTTGGCCTTCCCTGGTGTG
CAGTACTGCTGTAGAAAAGTATTAATAGCTTCATTTCATATAAACATAAGTAACTCCCAAACACTTATGTAGAGG
ACTAAAAATGTATCTGGTATTTAAGTAATCTGAACCACTTCTGCAAGTGAAGTGTGTTTGTATTACTGTGAAAAT
AAGAAAATGTAGTTAATTACAATTTAAAGAGTATTCACATAACTTCTTAATTTCTACATTCCCTCCCTTACTCT
TCGGGGGTTTCCCTTTCAGTAAGCAACTTTTCCATGCTCTTAATGTATTCCCTTTTGTAGGAATCCGGAAGTATT
AGATTGAATGGAAAAGCACTTGCCATCTCTGTCTAGGGGTACAAATTGAAATGGCTCCTGTATCACATACGGAG
GTCTTGTGTATCTGTGGCAACAGGGAGTTTCCCTTATCACTCTTTATTTGCTGCTGTTAAGTTGCCAACCTCCC
CTCCCAATAAAAAATTCACCTTACACCTCCTGCCTTTGTAGTTCTGGTATTCACTTTACTATGTGATAGAAGTAGCA
TGTTGCTGCCAGAATACAAGCATTGCTTTTGGCAAATTAAGTGCATGTCATTTCTTAATACACTAGAAAGGGGA
AATAAATTAAAGTACACAAGTCCAAGTCTAAACTTTAGTACTTTTCCATGCAGATTGTGTCACATGTGAGAGGG
TGTCCAGTTTGTCTAGTGATTGTTATTTAGAGAGTTGGACCACTATTGTGTGTTGCTAATCATTGACTGTAGTCC
CAAAAAAGCCTTGTGAAAATGTTATGCCCTATGTAAACAGCAGAGTAACATAAAATAAAAGTACATTTTATAAACC
ATTTACTATGGCTTTGTAAACAATTGCATACCCATATTTTAAAGGGACAGGTGAATTTACTACTTTCTAAAGTTTAT
TGATACTTCCCTTTTATGTAAAATGTAGTAGTGATACCTATATTTCCACATTGTGCATTGTGACACACTTGTCTA
GGGATGCCTGGAAGTGTATAAAATTGGACTGCATTTCTTAGAGTGTTTTACTATAGATCAGTCTCATGGGCCATC
CTTTCCTCAGATGTAAATGATATCTGGTTAAGTGTTATATGGAATAAAGTGGACATTTTAAAACTA

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FIGURE 80

MEKTELIQKAKLAEQAERYDDMATCMKAVTEQGAELSNEERNLLSVAYKNVVGRRSAWRVISSIEQKTDTSDDK
LQLIKDYREKVESELRSICTTVLELLDKYLIANATNPESKVFYLMKMGDYFRYLAEVACGDDRKQTIDNSQGAYQ
EAFDISKKEMQPTHPIRLGLALNFSVFYYEILNNPELACTLAKTAFDEAIAELDTLNEDSYKDSTLIMQLLRDNL
TLWTSDSAGEECDAAEGAEN

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FIGURE 81

AGCGCACGTCGGCAGTCGGCTCCCTCGTTGACCGAATCACCGACCTCTCTCCCCAGCTGTATTTC~~CAAA~~ATGTCG
CTTTCTAACAAGCTGACGCTGGACAAGCTGGACGTTAAAGGGAAGCGGGTCGTTATGAGAGTCGACTTCAATGTT
CCTATGAAGAACAACCAGATAACAAACAACCAGAGGATTAAGGCTGCTGTCCCAAGCATCAAATTCTGCTTGGAC
AATGGAGCCAAGTCGGTAGTCCTTATGAGCCACCTAGGCCGGCCTGATGGTGTGCCCCATGCCTGACAAGTACTCC
TTAGAGCCAGTTGCTGTAGAACTCAAATCTCTGCTGGGCAAGGATGTTCTGTCTTGAAGGACTGTGTAGGCCCA
GAAGTGGAGAAAGCCTGTGCCAACCCAGCTGCTGGGTCTGTTCATCCTGCTGGAGAACCTCCGCTTTCATGTGGAG
GAAGAAGGGAAGGGAAGATGCTTCTGGGAACAAGGTTAAAGCCGAGCCAGCCAAAATAGAAGCTTTCCGAGCT
TCACTTTCCAAGCTAGGGGATGTCTATGTCAATGATGCTTTTGGCACTGCTCACAGAGCCACAGCTCCATGGTA
GGAGTCAATCTGCCACAGAAGGCTGGTGGGTTTTTGATGAAGAAGGAGCTGAACTACTTTGCAAAGGCCTTGGAG
AGCCCAGAGCGACCCCTTCTGGCCATCCTGGGCGGAGCTAAAGTTGCAGACAAGATCCAGCTCATCAATAATATG
CTGGACAAAGTCAATGAGATGATTATTGGTGGTGGAATGGCTTTTACCTTCCTTAAGGTGCTCAACAACATGGAG
ATTGGCACTTCTCTGTTTGATGAAGAGGGAGCCAAGATTGTCAAAGACCTAATGTCCAAAGCTGAGAAGAATGGT
GTGAAGATTACCTTGCCCTGTGACTTTGTCACTGCTGACAAAGTTTGATGAGAAATGCCAAGACTGGCCAAGCCACT
GTGGCTTCTGGCATACTGCTGGCTGGATGGGCTTGGACTGTGGTCCTGAAAGCAGCAAGAAGTATGCTGAGGCT
GTCACCTCGGGCTAAGCAGATTGTGTGGAATGGTCTGTGGGGGTATTTGAATGGGAAGCTTTTGCCCCGGGAACC
AAAGCTCTCATGGATGAGGTGGTGAAAGCCACTTCTAGGGGCTGCATCACCATCATAGGTGGTGAGACACTGCC
ACTTGCTGTGCCAAATGGAACACGGAGGATAAAGTCAGCCATGTGAGCACTGGGGGTGGTGCCAGTTTGGAGCTC
CTGGAAGGTAAAGTCCTTCTGGGGTGGATGCTCTCAGCAATATTTAGTACTTTCCTGCCTTTTAGTTTCTGTGC
ACAGCCCTAAGTCAACTTAGCATTCTCTGCATCTCCACTTGGCATTAGCTAAAACCTTCCATGTCAAGATTGAG
CTAGTGGCCAAGAGATGCAGTGCCAGGAACCTTAAACAGTTGCACAGCATCTCAGCTCATCTTCACTGCACCCT
GGATTTGCATACATTCTTCAAGATCCCATTGAAATTTTTTAGTGACTAAACCATTGTGCATTCTAGAGTGCATAT
ATTTATATTTTGCCTGTTAAAAAGAAAGTGAGCAGTGTTAGCTTAGTTCTCTTTTGATGTAGGTTATTATGATTA
GCTTTGTCACCTGTTTCACTACTCAGCATGGAAACAAGATGAAATTCATTTGTAGGTAGTGAGACAAAATTGATG
ATCCATTAAAGTAAACAATAAAGTGTCATTGAAACCGTGATTTTTTTTTTTTCTGTACACTTTGTTAGGAA
GGGTGAGAATAGAATCTTGAGGAACGGATCAGATGTCTATATTGCTGAATGCAAGAAGTGGGGCAGCAGCAGTGG
AGAGATGGGACAATTAGATAAATGTCCATTCTTTATCAAGGGCCTACTTTATGGCAGACATTGTGCTAGTGCTTT
TATTTCTAACTTTTATTTTTATCAGTTACACATGATCATAATTTAAAAAGTCAAGGCTTATAACAAAAAGCCCCA
GCCCATTCCTCCCATTCAAGATTCCCACTCCCCAGAGGTGACCCTTTCACTCTTGAGTTTTTCAGGTATATAC
CTCCATGTTTCTAAGTAATATGCTTATATTGTTCACTTCTTTTTTTTTTTTTTTTTTAAAGAAATCTATTTATAC
CATGGAGGAAGGCTCTGTTCCACATATATTTCCACTTCTTCATTCTCTCGGTATAGTTTTGTACAAATTATAGAT
TAGATCAAAAGTCTACATAACTAATACAGCTGAGCTATGTAGTATGCTATGATTAAATTTACTTATGTAAAAAAA
AAAAAAAAAAAAA

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FIGURE 82

MSLSNKLTLDKLDVKGRVVMRVDFNVPMKNNQITNNQRIKAAVPSIKFCLDNGAKSVVLMShLGRPDGVPMPDK
YSLEPVAVELKSLLGKDVFLKDCVGPEVEKACANPAAGSVILLENLRFHVVEEGKGKDASGNKVKAEPKIEAF
RASLSKLGDVYVNDAGTAHRAHSSMVGVNLPQKAGGFLMKKELNYFAKALESPPERPFLAILGGAKVADKIQLIN
NMLDKVNEMIIGGGMAFTFLKVLNNMEIGTSLFDEEGAKIVKDLMSKAEKNGVKITLPVDFVTADKFDENAKTGQ
ATVASGIPAGWMGLDCGPESKKYAEAVTRAKQIVWNGPVGVFWEAFARGTKALMDEVVKATSRGCITIIIGGD
TATCCAKWNTEDKVSHVSTGGGASLELLEGGKVLPGVDALSNI

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FIGURE 83

CGCCCCTGCTCTCGCGCCGGCGTCGGCTGCGTCTCCGGCGTTTGAATTGCGCTTCCGCCATCTTCCAGCCTCAG
TCGGACGGGCGCGGAGGCGCTTCTGGAAGGAACGCCGCGATGGCTGCGCAGGGAGAGCCCCAGGTCCAGTTCAAA
CTTGATTGGTTGGTGATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTTGACTGGTGAATTTGAGAAG
AAGTATGTAGCCACCTTGGGTGTTGAGGTTCATCCCCCTAGTGTTCCACACCAACAGAGGACCTATTAAGTTCAAT
GTATGGGACACAGCCGGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCAGTGTGCCATC
ATAATGTTTGATGTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTACGAGTGTGT
GAAAACATCCCCATTGTGTTGTGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTC
TTCCACCGAAAGAAGAAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTACAACCTTTGAAAAGCCCTTCCTC
TGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGAATTTGTTGCCATGCCTGCTCTCGCCCCACCAGAAGTT
GTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACCTGCTCTCCCGGATGAG
GATGATGACCTGTGAGAATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGTGATGTC
AGCGGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTATCTGTGGGATGCTGAAG
GAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTAAAAAATAACTTCATTGTTTGGACCTGCATATTTAGCTGT
TTGGACGAGTTGATTCCCTTGAGTTTCATATATAAGACTGCTGCAGTCACATCACAATATTCAGTGGTGAAATCT
TGTTTGTACTGTCAATCCCATTCCTTTCTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAAGCAAGTGA
ACTCATCCCTTGTTTATAAATAGCATTTGGAAACCACTAAAGTAGGGAAGTTTTATGCCATGTAAATATTTGAAT
TGCCTTGCTTTTATCACTTAATTTGAAATCTATTGGGTTAATTTCTCCCTATGTTTATTTTGTACATTTGAGCC
ATGTCACACAACTGATGATGACAGGTCAGCAGTATTCTATTTGGTTAGAAGGGTTACATGGTGTAATATTAGT
GCAGTTAAGCTAAAGCAGTGTGTTGCTCCACCTTCATATTGGCTAGGTAGGGTCACCTAGGGAAGCACTTGCTCAA
AATCTGTGACCTGTGAGAATAAAATGTGGTTTGTACATATCAAATAGATATTTAAGGGTAATATTTCTTTTA
TGGCAAAAGTAATCATGTTTTAATGTAGAACCTCAAACAGGATGGAACATCAGTGGATGGCAGGAGGTTGGGAAT
TCTTGCTGTAAAAATAATTACAAATTTTGCACTTTTGTGTTGAATGTTAGATGCTTAGTGTGAAGTTGATACGC
AAGCCG

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FIGURE 84

MAAQGE PQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQEKFGGL
RDGYYIQACAIIMFDVTSRVTYKNVPNWHRDLVRVCENIPIVLCGNKVDIKDRKVKAKSIVFHRKKNLQYYDIS
AKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVMDPALAAQYEHDLVAQTALPDEDDDL

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FIGURE 85

CGCTAGCCTGCGGAGCCCGTCCGTGCTGTTCTGCGGCAAGGCCTTTCCCAGTGTCCCCACGCGGAAGGCAACTGC
CTGAAAGGCGCGGCGTTCGCACCGCCAGAGCTGAGGAAGCCGGCGCCAGTTCGCGGGGCTCCGGGCGCCACTCA
GAGCTATGAGCTACGGCCGCCCCCTCCGATGTGGAGGTATGACCTCCCTCAAGGTGGACAACCTGACCTACC
GCACCTCGCCCGACACGCTGAGGCGCGTCTTCGAGAAGTACAGGCGCGTTCGGCGACGTGTACATCCCGCGGGATC
GCTACACCAAGGAGTCCCGCGGCTTCGCCTTCGTTTCGTTTACGACAAGCGCGACGCTGAGGACGCTATGGATG
CCATGGACGGGGCCGTGCTGGACGGCCGCGAGCTGCGGGTGCAAAATGGCGCGCTACGGCCGCCCCCGGACTCAC
ACCACAGCCGCGGGGACCGCCACCCCGCAGGTACGGGGGCGGTGGCTACGGACGCCGGAGCCGAGCCCTAGGC
GGCGTCGCGCGAGCCGATCCCGGAGTCGGAGCCGTTCCAGGTCTCGCAGCCGATCTCGCTACAGCCGCTCGAAGT
CTCGGTCCCGCACTCGTTCTCGATCTCGGTTCGACCTCCAAGTCCAGATCCGCACGAAGGTCCAAGTCCAAGTCCT
CGTCGGTCTCCAGATCTCGTTTCGCGGTCCAGGTCCCGGTCTCGGTCCAGGAGTCTCCCCAGTGTCCAAGAGGG
AATCCAAATCCAGGTTCGCGATCGAAGAGTCCCCCAAGTCTCCTGAAGAGGAAGGAGCGGTGTCTCTTAAGAAA
ATGATGTATCGGCAAGCAGTGTAAACGGAGGACTTGGGGAAAAAGGACCACATAGTCCATCGAAGAAGAGTCCTT
GGAACAAGCAACTGGCTATTGAAAAGGTTATTTTGTAACATTGTCTAACTTTTTACTTGTTTAAGCTTTGCCTC
AGTTGGCAAACCTTCATTTTATGTGCCATTTTGTGCTGTTATTCAAATTTCTTGTAAATTTAGTGAGGTGAACGAC
TTCAGATTTTCATTATTGGATTGGATATTTGAGGTAAAATTTCAATTTTGTATATAGTGCTGACTTTTTTTTTTT
GAAATTAAACAGATTGGTAACCTAATTTGTGGCTCCTGACTTTTAAGGAAAACGTGTGCAGCCATTACACACAG
CCTAAAGCTGTCAAGAGATTGACTCGGCATTTCGTTTCCTTAAAAATTAAAAACCTACAAAAGTTGGTGTAAT
TTGTATATGTTATTTACCTTCAGATCTAAATGGTAATCTGAACCCAAATTTGTATAAAGACTTTTCAGGTGAAAA
GACTTGATTTTTTGAAAGGATTGTTTATCAAACACAATTCTAATCTCTTCTTATGTATTTTGTGCACTAGGC
GCAGTTGTGTAGCAGTTGAGTAATGCTGGTTAGCTGTTAAGGTGGCGTGTTCAGTGCAGAGTGCTTGCTGTTT
CCTGTTTTCTCCGATTGCTCCTGTGTAAAGATGCCTTGTCGTGCAGAAACAAATGGCTGTCCAGTTTATTA
TGCCTGACAACTGCACTTCCAGACACCCGGGCTTGCATATAAATAACGGAGCATACAGTGAGCACATCTAGCTG
ATGATAAATACACCTTTTTTTTCCCTCTTCCCCCTAAAAATGGTAAATCTGATCATATCTACATGTATGAACTTAA
CATGGAATGTTAAGGAAGCAAATGGTTGTAACCTTGTAAAGTACTTATAACATGGTGATCTTTTTTGCTTATGA
ATATCTGTATTATAACCATTTGTTCTGTAGTTTAATTAAACATTTTCTGGTGTTAGCTTTAAAAA
AAAA

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FIGURE 86

MSYGRPPPDVEGMTSLKVDNLTYRTSPDTLRRVFEKYRRVGDVYIPRDRYTKESRGFAFVRFHDKRDAEDAMDAM
DGAVLDGRELRVQMARYGRPPDSHHSRRGPPPRRYGGGGYGRRSRSPRRRRSRSRSRSRSRSRSRSRYSRSKSR
SRTRSRSRSTSKSRSAARRSKSKSSSVSRSRSRSRSRSRSPPPVSKRESKSRSRKSPPKSPEEEGAVSS

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FIGURE 87

GAGAGGAGACACCGCCGAGTTGCCGGTACATCGGGGATTTCTGGCTCTTTCTCTTCGCCTTAAATTCGGGTGT
CTTTTATGAATAATCAAAAGCAGCAAAAGCCAACGCTATCAGGCCAGCGTTTTAAACTAGAAAAAGAGATGAAA
AAGAGAGGTTTGACCCTACTCAGTTTCAAGACTGTATTATTCAAGGCTTAAGTAAACCGGTACTGATTGGGAAG
CAGTAGCTAAGTTTCTTGATGCTTCTGGAGCAAACTTGATTACCGTCGATATGCAGAAACACTCTTTGACATT
TGGTGGCTGGTGAATGCTGGCCCCAGGTGGTACACTGGCAGATGACATGATGCGTACAGATGTCTGCGTGTGTTG
CAGCCCAAGAAGATCTAGAGACCATGCAAGCATTGCTCAGGTTTTTAACAAGTTAATCAGGCGCTACAAATACC
TGGAGAAAGGTTTTGAAGATGAAGTAAAAAGCTGCTGCTGTTCTTGAAGGGTTTTTCAGAGTCGGAGAGGAACA
AGCTAGCTATGTTGACTGGTGTCTTCTGGCTAATGGAACACTTAATGCATCCATTCTTAATAGCCTTTATAATG
AAAATTTGGTTAAAGAAGGAGTTTCAGCAGCTTTTCTGTGAAGCTCTTTAAATCATGGATAAATGAAAAAGATA
TCAATGCAGTAGCTGCAAGTCTTCGAAAGTCAGCATGGATAACAGACTGATGGAACCTTTTCTGCCAATAAGC
AAAGTGTTGAACACTTCACAAAATATTTTACTGAGGCAGGCTTGAAGAGCTTTTCAAGATATGTTCCGAATCAGC
AAACCATCGGAGCTCGTAAGGAGCTCCAGAAAGAAGTTCAAGAACAGATGTCCCGTGGTGATCCATTTAAGGATA
TAATTTTATATGTCAAGGAGGAGATGAAAAAACAACATCCAGAGCCAGTTGTCATCGGAATAGTCTGGTCAA
GTGTAATGAGCACTGTGGAATGGAACAAAAAGAGGAGCTTGTAGCAGAGCAAGCCATCAAGCACTTGAAGCAAT
ACAGCCCTCTACTTGCTGCCTTTTACTACTCAAGGTCAGTCTGAGCTGACTCTGTTACTGAAGATTACAGGAGTATT
GCTATGACAACATTCATTTTATGAAAGCCTTCCAGAAAATAGTGGTGCTTTTTTATAAAGCTGAAGTCTGAGCG
AGGAGCCCATTTTGAAGTGGTATAAAGATGCACATGTTGCAAAGGGGAAGAGTGTTCCTTGAGCAATGAAAA
AGTTTGTAGAATGGCTCAAAAATGCTGAAGAAGAATCTGAATCTGAAGCTGAAGAAGGTGACTGAATTTTGAAAC
TACACCTCAGTAAAGCAACAGGAGTTGTAGATAAAATGTCATGCTCATGTGCTCGGTTCTTACATCTTCCT
ACCTCCCTGTATCAAGCATGATATAAGGGCTTTTATGCGCAATTTTATTTAACTGTTTCTATGGTTGCTGGA
TGTGGGTTTGTCTTAAACCATGTTTTAAGTAGCTACAGGAGCTATAGATTGAACTCAATGTTGCATTAGT
CTTTTCAGTTATCTTCTACCTCCTGTATTTTCTACTGTAATAATGTAATTTAAGGCCTTCCACAATGAACAGTTC
ACTTTATTCCTGGGTTTTCTATAAACAGTTTTAAGGATATGATTGGTTAAAAAATAATTTGTTATAAAAAATTC
TGTTTGCAAATTAAGTGGAAAAGTATCCAGAGTCTCAAAAGGCAATGATTGTGAGATAATATGGCATGCCCGG
AGCCCTGCTCATCAATGAAAAACCCATATGTAATAATCGAATTCATTTAACATGAATCTTGAGTACGTGGACCAT
TGCTTGATGTTAACTTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGCAATTTTAACTCCAGATATCCTAAAGCTC
AATTGTTTGGTCTCTGGTTTTTATCCTTAGAGAAGCCATGGAGAACAGACTTGAAGGTTTAGGAAATCATAATG
TGGCAGAGGTGGTGGGAAGAAGAAAGTTGAGCTTTTTCCCTTGAGAACTTCTGCATTTAGTTTCTATCTTCC
AGGCAAAACAAATGGGTATTCTTTTATACAACCATTTTCAAATGAACCTTAGAAAAGTCTTAACATTTAAGGTA
TTTTATGCACAGAATACACTTAGATTGATAGGAAAGAACTCGTAATGGAGTTTGAGTAAAGAAAATGACTGATGT
ACTAAACCCAGTAAAAATGTTGAAAATGTTAAAGGTCAGCATGTTCTAATTGGGAATCTAGATATAGCTTAGAT
TTCCTATTGGCTTAGAGTATTGCTATAACAAATGAAGTGCAATGACAATTATATTTCTACTCGGTCTACTG
GACTGGCTTCGTTCTTAAATATACTCAGTAATGACTCAAGCCTCTGGCTATTAACATACCCTAGTTGCCGTTTT
TTAATTGCCATGAGCCAAATACTTCTTGGTATACAATTGATCCATTTATTTAATGGCTGCCTTTTCAATTTTCA
CTTTTCTTGCTGCTACCCATCTATGTATGTAGTCATTGGGGGAAAATGTAGCCACATTTTTATGGGAAGACTT
TGTGTTAAAGTGAACATTTTGAAGGTTTTTAACTGGTGAACTAGCCTGGAATAATGCCACCAGAGACTGAGTG
GAAATCGCCCTTTTGAAGGTGCCATTCTTATGAGCCAAAAGTTTGTCAATTTAAAGTTCAATTTGAGGGAATAA
CATGTAATATAATTTGAAATAAAGGTATAGTAACCTTAAAAAGAACATTATACTGATTGTTGTGAATGGGGTGA
ATTTGTTAAATGAGTAACTTTGATAAAGTTTTTATGCACAGGCAAAATGTATTCACTAGATTTCTACGTAGTG
ATCTGCTTTTACTTTGTAATTTGTAGTTCTCAAAAGACTTTTTTTTAAAAAATAAAGTCCATACTTACACTT

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FIGURE 88

MNNQKQKPTLSGQRFKTRKRDEKERFDPTQFQDCIIQGLTETGTDLEAVAKFLDASGAKLDYRRYAETLFDILV
AGGMLAPGGTLADMMRTDVCVFAAQEDLETMQAFAQVFNKLIRRYKYLEKGFEDVKKLLLFLKGFSESERNKL
AMLTGVLLANGTLNASILNSLYNENLVKEGVSAFAVKLFKSWINEKDINAVAASLRKVSMDNRLMELFPANKQS
VEHFTKYFTEAGLKELSEYVRNQQTIGARKELQKELQEQMSRGDPFKDIILYVKEEMKKNNIPEPVVIGIVWSSV
MSTVEWNKKEELVAEQAIKHLKQYSPLLAFTTQGSSELTLLKIQEYCYDNIHFMKAFQKIVVLFYKAEVLSEE
PILKWKDAHVAKGKSVFLEQMKKFVEWLKNAEESESEAEED

FIGURE 89

GTCAGTCCCTCCTGTAGCCGCCGCCGCCGCCGCCCTCTGCCAGCAGCTCCGGCGCCACCTCGGGCCG
GCGTCTCCGGCGGGCGGGAGCCAGGCGCTGACGGGCGGGCGGGGCGGCCGAGCGCTCCTGCGGCTGCGACTCA
GGCTCCGGCGTCTGCGCTTCCCCATGGGGCTGGCCTGCGGCGCCTGGGCGCTCTGAGATTGTCACTGCTGTTCCA
AGGGCACACGCAGAGGGATTGGAATTCCTGGAGAGTTGCCTTTGTGAGAAGCTGGAAATATTTCTTTCAATTCC
ATCTCTTAGTTTTCCATAGGAACATCAAGAAATCATGAACAACCTTGGTAATGAAGAGTTTGACTGCCACTTCCT
CGATGAAGGTTTTACTGCCAAGGACATTCTGGACCAGAAAATTAATGAAGTTTCTTCTCTGATGATAAGGATGC
CTTCTATGTGGCAGACCTGGGAGACATTCTAAAGAAACATCTGAGGTGGTTAAAGCTCTCCCTCGTGTACCCCC
CTTTTATGCAGTCAAATGTAATGATAGCAAAGCCATCGTGAAGACCCCTTGCTGCTACCGGGACAGGATTTGACTG
TGCTAGCAAGACTGAAATACAGTTGGTGCAGAGTCTGGGGGTGCCTCCAGAGAGGATTATCTATGCAAATCCTTG
TAAACAAGTATCTCAAATTAAGTATGCTGCTAATAATGGAGTCCAGATGATGACTTTTGATAGTGAAGTTGAGTT
GATGAAAGTTGCCAGAGCACATCCCAAAGCAAAGTTGGTTTTGCGGATTGCCACTGATGATTCCAAAGCAGTCTG
TCGTCTCAGTGTAAATTCGGTGCCACGCTCAGAACCAGGCTCCTTTTGGAACGGGCGAAAGAGCTAAATAT
CGATGTTGTTGGTGTGAGCTTCCATGTAGGAAGCGGCTGTACCGATCCTGAGACCTTCGTGCAGGCAATCTCTGA
TGCCCGCTGTGTTTTGACATGGGGGCTGAGGTTGGTTTCAGCATGTATCTGCTTGATATTGGCGGTGGCTTTCC
TGGATCTGAGGATGTGAAACTTAAATTTGAAGAGATCACCGGCGTAATCAACCCAGCGTTGGACAAATACTTTCC
GTCAGACTCTGGAGTGAGAATCATAGCTGAGCCCGGCAGATACTATGTTGCATCAGCTTTCACGCTTGCACTTAA
TATCATTGCCAAGAAAATTGTATTAAAGGAACAGACGGGCTCTGATGACGAAGATGAGTCGAGTGAGCAGACCTT
TATGTATTATGTGAATGATGGCGTCTATGGATCATTAAATTGCATACCTATGACCACGCACATGTAAAGCCCTT
TCTGCAAAAGAGACCTAAACCAGATGAGAAGTATTATTCATCCAGCATATGGGGACCAACATGTGATGGCCTCGA
TCGGATTGTTGAGCGCTGTGACCTGCCTGAAATGCATGTGGGTGATTGGATGCTCTTTGAAAACATGGGCGCTTA
CACTGTTGCTGCTGCCTCTACGTTCAATGGCTTCCAGAGGCCGACGATCTACTATGTGATGTCAGGGCCTGCGTG
GCAACTCATGCAGCAATTCCAGAACCCCGACTTCCACCCGAAGTAGAGGAACAGGATGCCAGCACCCCTGCCTGT
GTCTTGTGCCTGGGAGAGTGGGATGAAACGCCACAGAGCAGCCTGTGCTTCGGCTAGTATTAATGTGTAGATAGC
ACTCTGGTAGCTGTTAACTGCAAGTTTAGCTTGAATTAAGGGATTTGGGGGGACCATGTAACCTAATTACTGCTA
GTTTTGAAATGTCTTTGTAAGAGTAGGGTCGCCATGATGCAGCCATATGGAAGACTAGGATATGGGTACACTTA
TCGTGTTCCTATGGAAACTATTTGAATATTTGTTTTATATGGATTTTTATTCACTCTTCAGACACGCTACTCAA
GAGTGCCCTCAGCTGCTGAACAAGCATTGTAGCTTGTACAATGGCAGAATGGGCCAAAAGCTTAGTGTTGTGA
CCTGTTTTTAAATAAAGTATCTTGAAATAATTAGGC

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FIGURE 90

MNNFGNEEFDCFLDEGFTAKDILDQKINEVSSSDDKDAFYVADLGDILKKHLRWLKA
LPRVTPFYAVKCNDSKA
IVKTLAATGTGFDCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAAANGVQMMTFDSE
VELMKVARAHPKAK
LVLRIATDDSKAVCRLSVKFGATLRTSRLLLERAKELNIDVVGVSFHVSGCTDPETFVQA
ISDARCVFDMGAEV
GFSMYLLDIGGGFPGSEDVKLKFEEITGVINPALDKYFPSDSGVRIIAEPGRYYVASAFT
LAVNIIAKKIVLKEQ
TGSDDEDESSEQTFMYVNDGVYGSFNCILYDHAHVKPLLQKRPKPDEKYYSSSIWGPTCD
GLDRIVERCDLPEM
HVGDWMLFENMGAYTVAAASTFNGFQRPTIYYVMSGPAWQLMQQFQNPDPPEVEEQDAS
TLPVSCAWESGMKRH
RAACASASINV

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FIGURE 91

CACGCTTGCCGCCGCCCGCAGAAATGCTTCGGTTACCCACAGTCTTTGCCAGATGAGACCGGTGTCCAGGGTA
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAA
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAGATAAATAACAAGAAC
ATTGGAGCTAAACTTGTTCAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT
GTACTGGCAGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAATCAGGAGA
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACCTTAAAAAGCAGTCTAAACCTGTGACCAACCCCTGAAGAA
ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAAA
GTTGGAAGAAAGGGTGTATCACAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG
AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAAGGTCAGAAATGTGAATTCCAGGATGCC
TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAAATAGGCTAAAG
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAGAACAGCTTAAAGATATGGCT
ATTGCTACTGGTGGTGCAGTGTGTTGGAGAAGAGGGATTGACCTGAATCTTGAAGACGTTTCAGCCTCATGACTTA
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAGGAAAAGGTGACAAGGCTCAAATT
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAACTAGTGAATATGAAAAGGAAAAACTGAATGAA
CGGCTTGCAAAACCTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAG
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT
GCCCTCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTGGTATAGAAATT
ATTAAAGAACACTCAAAATTCCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG
AAAATTATGCAAAGTTCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA
ATCATTGACCCAACAAAGGTTGTGAGAAGTCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTTAACTACAGCA
GAAGTTGTAGTCACAGAAATTCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT
ATGGGAGGTGGCATGTTCTAACTCCTAGACTAGTGCTTTACCTTTATTAATGAACTGTGACAGGAAGCCCAAGGC
AGTGTTCTCACCATAACTTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAGGCTGGCTGAAAATCACTATAA
CCATCAGTTACTGGTTTCAGTTGACAAAATATATAATGGTTTACTGCTGTCATTGTCCATGCCTACAGATAATTT
ATTTTGTATTTTGAATAAAAAACATTTGTACATTCTGTATACTGGGTACAAGAGCCATGTACCAGTGTACTGCT
TTCAACTTAAATCACTGAGGCATTTTACTACTATTCTGTTAAAAATCAGGATTTTAGTGCTTGCCACCACCAGAT
GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA
ACCTTTGTGTAATAAAAAATTTGTTTAA

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FIGURE 92

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIEQGWGSPKVTK
DGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTITATVLARSIKEGFEKISKGANPVEIRRGVMLAVDA
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIEGMMKFDRGYIS
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANHRKPLVIIAEDVDGEALSTLVNRLKVGLQVVAV
KAPGFQDNRNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEI
EQLDVTTSEYEKEKLNERLAKLSGVAVLKVGGSDEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA
LDLTPANEDQKIGIEIIKRTLKIPAMTIKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKV
RTALLDAAGVASLLTTAEVVVTEIPKEEKDFGMGAMGGMGGMGGMGGMF

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FIGURE 93

GTTCCAAGGTTTGC GGCCCGTCTCGGAGAAGAGGGGAGAGTGGAGGGCCGCTGAATAAGCTTCCAAAATGATGC
CCACACCAGTTATCCTATTGAAAGAGGGGACTGATAGCTCCCAAGGCATCCCCAGCTTGTGAGTAACATCAGTG
CCTGCCAGGTGATTGCTGAGGCTGTAAGAATAACCTGGGTCCCCGTGGCATGGACAAGCTTATTGTAGATGGCA
GAGGCAAAGCAACAATTTCTAATGATGGGGCCACAATTCTGAAACTTCTTGATGTTGTCCATCCTGCAGCAAAGA
CTTTGGTAGACATTGCCAAATCCCAAGATGCTGAGGTGGGTGATGGCACCACCTCAGTGACCTTGCTGGCTGCAG
AGTTTCTGAAGCAGGTGAAACCCTATGTGGAGGAAGGTTTACACCCCAAGATCATTCAGAGCTTTCCGCACAG
CCACCCAGCTGGCAGTTAACAAGATCAAAGAGATTGCTGTGACCGTGAAGAAGGCAGATAAAGTGGAGCAGAGGA
AGCTGCTGGAAAAGTGTGCCATGACCGCTCTGAGCTCCAAGCTGATCTCCAGCAGAAAGCTTTCTTTGCTAAGA
TGGTGGTGGATGCAGTATGCTCGATGATTGCTGCAGCTTAAATGATTGGAATCAAGAAGGTACAGGGTG
GAGCCCTCGAGGATTCTCAGCTGGTAGCTGGTGTGCATTCAAGAAGACTTTCTTACGCTGGGTTTGAAATGC
AACCCAAAAAGTACCACAATCCCAAGATTGCCCTTTGAATGTCGAGCTCGAGTTGAAAGCTGAGAAAGACAATG
CTGAGATAAGAGTCCACACAGTTGAGGATTATCAGGCAATTGTTGATGCTGAGTGGAACATTCTCTATGACAAGT
TAGAGAAGATCCATCATTCTGGAGCCAAAGTTGTCTTGTCAAACTCCCCATTGGGGATGTGGCCACCCAGTACT
TTGCTGACAGGGACATGTTCTGTGCTGGCCGAGTACCTGAGGAGGATCTGAAGAGGACAATGATGGCCTGTGGAG
GCTCAATCCAGACCAGTGTGAATGCTCTGTGTCAGCAGATGTGCTGGGTGATGCCAGGTGTTTGAAGAGACCCAGA
TTGGAGGCGAGAGGTACAATTTTTTACTGGCTGCCCCAAGGCCAAGACATGCACCTTCATTCTCCGTGGCGGCG
CCGAGCAGTTTATGGAGGAGACAGAGCGGTCCCTGCATGATGCCATCATGATCGTCAGGAGGGCCATCAAGAATG
ATTCAGTGGTGGCTGGTGGCGGGGCCATTGAGATGGAACCTCTCCAAGTACCTGCGGGATTACTCAAGGACTATT
CAGGAAAACAGCAGCTGTTGATTGGGGCTTATGCCAAGGCCTTGAGATTATCCACGCCAGCTGTGTGACAATG
CTGGCTTTGATGCCACAAACATTCTCAACAAGCTGCGGGCTCGGCATGCCAGGGGGGTACATGGTATGGAGTAG
ACATCAACAACGAGGACATTGCTGACAACCTTTGAAGCTTTCGTGTGGGAGCCAGCTATGGTGC GGATCAATGCGC
TGACAGCAGCCTCTGAGGCTGCGTGCCTGATCGTGTCTGTAGATGAAACCATCAAGAACCCCGCTCGACTGTGG
ATGCTCCACAGCAGCAGGCCGGGGCCGTTGGTCTGTGGCCGCCCCACTGAGAGGCACCCACCCATCAGATGGCT
GGCTGGCTGCTGGGTGCATTACCTCCTTGGCTTGGTTACTTCATTTTACAAGGAAGGGGTAGTAATTGGCCCA
CTCTCTTCTTACTGGAGGCTATTTAAATAAAATGTAAGACTTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 94

MMPTPVILLKEGTDSSQGIPQLVSNISACQVIAEAVRTTLGPRGMDKLIVDGRGKATISNDGATILKLLDVVHPA
AKTLVDIAKSQDAEVGDGTTSVILLAAEFLKQVKPYVEEGLHPQIIIRAFRTATQLAVNKIKEIAVTVKKADKVE
QRKLEKCAMTALSSKLISQQKAFFAKMVVDVMMDDLLQLKMIGIKKVQGGAEEDSQLVAGVAFKKTF SYAGF
EMQPKKYHNPKIALLNVELELKAEKDNAEIRVHTVEDYQAIVDAEWNILYDKLEKIHHSAGKVVLSKLP IGDVAT
QYFADRD MFCAGRVPEEDLKRTMMACGGS IQTSVNALSADVLGRCQVFEETQIGGERYNFFTGCPKAKTCTFILR
GGAEQFMEETERSLHDAIMIVRRAIKNDSV VAGGAIEMELSKYL RDYSRTIPGKQQLLIGAYAKALEIIPRQLC
DNAGFDATN I LNKLRARHAQGGTWYGVDINNEDIADNFEAFVWEPAMVRINALTAASEAACLIVSDETIKNPRS
TVDAPTAAGRGRGRGRPH

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FIGURE 95

CGGGGCGGCAGGCTTCTCGAGCTCCGGGCCCCGCGCAACCTCGGGCGCTGTTCTGCAGGCCGCGACCGGCATGTA
CGAGCAACTCAAGGGCGAGTGGAACCGTAAAAGCCCCAATCTTAGCAAGTGCGGGGAAGAGCTGGGTCGACTCAA
GCTAGTTCTTCTGGAGCTCAACTTCTTGCCAACCACAGGGACCAAGCTGACCAAACAGCAGCTAATTCTGGCCCG
TGACATACTGGAGATCGGGGCCCAATGGAGCATCCTACGCAAGGACATCCCCTCCTTCGAGCGCTACATGGCCCA
GCTCAAATGCTACTACTTTGATTACAAGGAGCAGCTCCCCGAGTCAGCCTATATGCACCAGCTCTTGGGCCTCAA
CCTCCTCTTCTGCTGTCCCAGAACCGGGTGGCTGAGTTCCACACGGAGTTGGAGCGGCTGCCTGCCAAGGACAT
ACAGACCAATGTCTACATCAAGCACCCAGTGTCCCTGGAGCAATACCTGATGGAGGGCAGCTACAACAAAGTGTT
CCTGGCCAAGGGTAACATCCCCGCCGAGAGCTACACCTTCTTCATGACATCCTGCTCGACACTATCAGGGATGA
GATCGCTGGGTGCATCGAGAAGGCCTACGAGAAAAATCCTTTTCACTGAGGCCACCCGGATCCTCTTCTTCAACAC
ACCCAAAAAGATGACAGACTACGCCAAGAAGCGAGGGTGGGTCCCTGGGCCCCAACAACTACTACAGTTTGGCCAG
CCAGCAGCAGAAGCCGGAAGACACCACCATTCCTCCACAGAAGTGGCCAAACAGGTATCGAGTATGCCCAGCA
GCTGGAGATGATCGTCTGAGCCCCCGGGCACTGGGTGGGGCAGGGCACGAGTTATTTAAACAGTTACACTGCA
GGGTTTCGCCCAATAAAGGTGGACTGAC

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FIGURE 96

MYEQLKGEWNRKSPNLSKCGEELGRCLKVLLELNLFLPTTGKLTQQILARDILEIGAQWSILRKDIPSFERYM
AQLKCYFFDYKEQLPESAYMHQLLGLNLLFLLSQNRVAEFHTELERLPAKDIQTNVYIKHPVSLEQYLMEGSYNK
VFLAKGNIPAESYFFFIDILLDTIRDEIAGCIEKAYEKILFTEATRILFFNTPKKMTDYAKKRGWVLGPNNYYSE
ASQQQKPEDTTIPSTELAKQVIEYARQLEMIV

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FIGURE 97

GGCACGAGGATGGAGGAGGGAGGCCGGGACAAGGCGCCGGTGCAGCCCCAGCAGTCTCCAGCGGCGGCCCCCGGC
GGCACGGACGAGAAGCCGAGCGGCAAGGAGCGGCGGGATGCCGGGACAAGGACAAAGAACAGGAGCTGTCTGAA
GAGGATAAACAGCTTCAAGATGAACTGGAGATGCTCGTGGAACTAGGGGAGAAGGATACATCCCTGTATCGA
CCAGCGCTGGAGGAATTGCGAAGGCAGATTGCTTCTTCTACAACCTCCATGACTTCAGTGCCCAAGCCTCTCAAA
TTTCTGCGTCCACACTATGGCAAACCTGAAGGAAATCTATGAGAACATGGCCCCCTGGGGAGAATAAGCGTTTTGCT
GCTGACATCATCTCCGTTTTGGCCATGACCATGAGTGGGGAGCGTGAGTGCCTCAAGTATCGGCTAGTGGGCTCC
CAGGAGGAATTGGCATCATGGGGTTCATGAGTATGTCAGGCATCTGGCAGGAGAAGTGGCTAAGGAGTGGCAGGAG
CTGGATGACGCAGAGAAGGTCCAGCGGGAGCCTCTGCTCACTCTGGTGAAGGAAATCGTCCCCCTATAACATGGCC
CACAATGCAGAGCATGAGGCTTGGCAGCTGCTTATGGAATTGAGCAGGTGGACATGCTGGAGAAGGACATTGAT
GAAATGCATATGCAAAGGTCTGCCCTTATCTCACCAGTTGTGTGAATTACGTGCCTGAGCCTGAGAATCAGCC
CTACTGCGTTGTGCCCTGGGTGTGTTCCGAAAGTTAGCCGCTTCCCTGAAGCTCTGAGATTGGCATTGATGCTC
AATGACATGGAGTTGGTAGAAGACATCTTACCTCCTGCAAGGATGTGGTAGTACAGAAACAGATGGCATTTCATG
CTAGGCCGGCATGGGGTGTTCCTGGAGCTGAGTGAAGATGTCGAGGAGTATGAGGACCTGACAGAGATCATGTCC
AATGTACAGCTCAACAGCAACTTCTTGGCCTTAGCTCGGGAGCTGGACATCATGGAGCCCAAGGTGCCCTGATGAC
ATCTACAAAACCCACCTAGAGAACAACAGGTTTGGGGGAGTGGCTCTCAGGTGGACTCTGCCCCGATGAACCTG
GCTCCTCTTTTTGTGAATGGCTTTGTGAATGCAGCTTTTGGCCAAGACAAGCTGCTAACAGATGATGGCAACAAA
TGGCTTTACAAGAACAAGGACCACGGAATGTTGAGTGCAGCTGCATCTCTTGGGATGATTCTGCTGTGGGATGTG
GATGGTGGCCTCACCAGATTGACAAGTACCTGTACTCCTCTGAGGACTACATTAAGTCAGGAGCTCTTCTTGCC
TGTGGCATAGTGAATCTTGGGGTCCGGAATGAGTGTGACCCCTGCTCTGGCACTGCTCTCAGACTATGTTCTCCAC
AACAGCAACACCATGAGACTTGGTTCCATCTTTGGGCTAGGCTTGGCTTATGCTGGCTCAAATCGTGAAGATGTC
CTAACACTGCTGCTGCCCTGTGATGGGAGATTCAAAGTCCAGCATGGAGGTGGCAGGTGTCACAGCTTTAGCCTGT
GGAATGATAGCAGTAGGGTCTGCAATGGAGATGTAACCTCCACTATCCTTCAGACCATCATGGAGAAGTCAGAG
ACTGAGCTCAAGGATACTTATGCTCGTTGGCTTCCCTTGGACTGGGTCTCAACCACCTGGGGAAGGGTAGGGCC
ATCGAGGCAATCCTGGCTGCACTGGAGGTTGTGTGTCAGAGCCATTCCGAGTTTTGGCAACACACTGGTGGATGTG
TGTGCATATGCAGGCTCTGGGAATGTGCTGAAGGTGCAGCAGCTGCTCCACATTTGTAGCGAACACTTTGACTCC
AAAGAGAAGGAGGAAGACAAAGACAAGAAGGAAAAGAAAAGACAAGGACAAGAAGGAAGCCCTGCTGACATGGGA
GCACATCAGGGAGTGGCTGTTCTGGGGATTGCCCTTATTGCTATGGGGGAGGAGATTGGTGCAGAGATGGCATT
CGAACCTTTGGCCACTTGCTGAGATATGGGGAGCCTACACTCCGGAGGGCTGTACCTTTAGCACTGGCCCTCATC
TCTGTTTCAAATCCACGACTCAACATCCTGGATACCCTAAGCAAATCTCTCATGATGCTGATCCAGAAGTTTCC
TATTACTCCATTTTGGCCATGGGCATGGTGGGAGTGGTACCAATAATGCCCGTCTGGCTGCAATGCTGCGCCAG
TTAGCTCAATATCATGCCAAGGACCCAAACAACCTTTCATGGTGCCTTGGCACAGGGCCTGACACATTTAGGG
AAGGGCACCCCTTACCCTCTGCCCCTACCACAGCGACCGGCAGCTTATGAGCCAGGTGGCCGTGGCTGGACTGCTC
ACTGTGCTTGTCTCTTTCCTGGATGTTGGAACATTATTTAGGCAAATCACACTATGTATTGTATGGGCTGGTG
GCTGCCATGCAGCCCCGAATGCTGGTTACGTTTGTAGGAGCTGCGGCCATTGCCAGTGTCTGTCCGTGTGGGC
CAGGCAGTGGATGTGGTGGGCCAGGCTGGCAAGCCGAAGACTATCACAGGGTTCCAGACGCATACAACCCAGTG
TTGTTGGCCACGGGGAACGGGCAGAATTGGCCACTGAGGAGTTTCTTCTGTTACCCCCATTCTGGAAGGTTTT
GTTATCCTTCGGAAGAACCCCAATTATGATCTCTAAGTGACCACCAGGGGCTCTGAACTGCAGCTGATGTTATCA
GCAGGCCATGCATCCTGCTGCCAAGGGTGGACACGGCTGCAGACTTCTGGGGGAATTGTGCGCTCCTGCTCTTTT
GTTACTGAGTGAGATAAGGTTGTTCAATAAAGACTTTTATCCCCAAGGTCAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 98

MEEGGRDKAPVQPQQSPAAAPGGTDEKPSGKERRDAGDKDKEQELSEEDKQLQDELEMLVERLGEKDTSLYRPAL
EELRRQIRSSSTTSMTSVPKPLKFLRPHYGKLKEIYENMAPGENKRFAADIISVLAMTMSGERECLKYRLVGSQEE
LASWGHEYVRHLAGEVAKEWQELDDAEKVQREPLTLVKEIVPYNMAHNAEHEACDLLMEIEQVDMLEKDIDENA
YAKVCLYLITSCVNYVPEPENSALLRCALGVFRKFSRFPEALRLALMLNDMELVEDIFTCKDVVVQKQMAFMLGR
HGVFLELSEDVEEYEDLTEIMSNVQLNSNFLALARELDIMEPKVPDDIYKTHLENNRFGGSGSQVDSARMNLA'S
FVNGFVNAAFQDKLLTDDGNKWLYKNKDHGMLSAAASLGMILLWDVDGGLTQIDKYLYSSEDIYKSGALLACGI
VNSGVRNECDPALALLSDYVLHNSNTMRLGSIFGLGLAYAGSNREDVLTLLLPVMGDSKSSMEVAGVTALACGMI
AVGSCNGDVTSTILQTIMEKSETELKDTYARWLPLGLGLNHLGKGEAIEAILAALEVVSSEPFERSFANTLVDCAY
AGSGNVLVQQLLHICSEHFDSKEKEEDKDKKEKKDKDKKEAPADMGAHQGVAVLGIALIAMGEEIGAEMALRTF
GHLLRYGEPTLRRVPLALALISVSNPRLNILDTLKFSHSDADPEVSYYSIFAMGMVSGTNNARLAAMLRLQLAQ
YHAKDPNNLFMVRLAQGLTHLGKGLTLCPYHSDRQLMSQVAVAGLLTVLVSF LDVRNIILGKSHYVLYGLVAAM
QPRMLVTFDEELRPLPVSVRVGQAVDVVGQAGPKTITGFTHTTPVLLAHGERAEELATEEFLPVTPILEGFVIL
RKNPNYDL

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FIGURE 99A

TATACTTCGCTACTTGGCTAGAGTTGCAACTACAGCTGGGTTATATGGCTCTAATCTGATGGAACATACTGAGAT
TGATCACTGGTTGGAGTTCAGTGCTACAAAATTATCTTCATGTGATTCTTTACTTCTACAATTAATGAACTCAA
TCATTGCCGTGCTCTGAGAACATACTTAGTTGGAACTCCTTGAGTTTAGCAGATTATGTGTTTGGGCCACCCT
AAAAGGAAATGCTGCCTGGCAAGAACAGTTGAAACAGAAGAAAGCTCCAGTTCATGTAAAACGTTGGTTTGGCTT
TCTTGAAGCCCAGCAGGCCTTCCAGTCAGTAGGTACCAAGTGGGATGTTTCAACAACCAAAGCTCGAGTGGCACC
TGAGAAAAAGCAAGATGTTGGGAAATTTGTTGAGCTTCCAGGTGCGGAGATGGGAAAGGTTACCGTCAGATTTCC
TCCAGAGGCCAGTGGTTACTTACACATTGGGCATGCAAAAGCTGCTCTTCTGAACCAGCACTACCAGGTTAACTT
TAAAGGGAACCTGATCATGAGATTGATGACACAAATCCTGAAAAAGAAAGGAAGATTTTGAGAAGGTTATCTT
GGAAGATGTTGCAATGTTGCATATCAAACCAGATCAATTTACTTATACTTCGGATCATTTTGAACTATAATGAA
GTATGCAGAGAAGCTAATTCAGGAAGGGAAGGCTTATGTGGATGATACTCCTGCTGAACAGATGAAAGCAGAACG
TGAGCAGAGGATAGAATCTAAACATAGAAAAACCCATTGAGAAGAATCTACAAATGTGGGAAGAAATGAAAA
AGGGAGCCAGTTGGTCACTCCTGTTGTTTGGCAGCAAAATTTGACATGAGTAGTAACAATGGATGCATGAGAGA
TCCAACCTTTTATCGCTGCAAAATTCACACATCCAAGAAGCTGGAAATAAATACAATGTTTATCCAACATATGA
TTTTGCCTGCCCCATAGTTGACAGCATCGAAGGTGTACACATGCCCTGAGAACAACAGAATACCATGACAGAGA
TGAGCAGTTTTACTGGATTATTGAAGCTTTAGGCATAAGAAAACCATATATTGGAATATAGTCGGCTAAATCT
CAACAACACAGTGCTATCCAAAAGAAAACCTCACATGGTTTGTCAATGAAGGACTAGTAGATGGATGGGATGACCC
AAGATTTCTACGGTTCGTGGTGTACTGAGAAGAGGGATGACAGTTGAAGGACTGAAACAGTTTATTGCTGCTCA
GGGCTCCTCACGTTTCAGTCGTGAACATGGAGTGGGACAAAATCTGGGCGTTTAAACAAAAGGTTATTGACCCAGT
GGCTCCACGATATGTTGCATTACTGAAGAAAGAGTGATCCCAGTGAATGTACCTGAAGCTCAGGAGGAGATGAA
AGAAGTAGCCAAACACCCAAAGAAATCCTGAGGTTGGCTTGAAGCCTGTGTGGTATAGTCCCAAAGTTTTCAATTGA
AGGTGCTGATGCAGAGACTTTTTCGGAGGGTGAGATGGTTACATTATAAATTGGGGCAACCTCAACATTACAAA
AATACACAAAAATGCAGATGGAAAAATCATATCTCTGATGCAAGTTTAATTTGGAAAACAAAGACTACAAGAA
AACCCTAAGGTCAGTTGGCTTGCAGAGACTACACATGCTCTTCTATTCCAGTAATCTGTGTCACTTATGAGCA
CTTGATCACAAAGCCAGTCTAGGAAAAGACGAGGACTTTAAGCAGTATGTCAACAAGAACAGTAAGCATGAAGA
GCTAATGCTAGGGGATCCCTTAAGGATTTGAAAAAGGAGATATTATACAACCTCCAGAGAAGAGGATTCTT
CATATGTGATCAACCTTATGAACCTGTTAGCCCATATAGTTGCAAGGAAGCCCCGTGTTTTGATATACATTTCC
TGATGGGCACACAAAGGAAATGCCAACATCAGGGTCAAAGGAAAAAGACCAAAGTAGAAGCCACAAAAATGAGAC
CTCTGCTCCTTTTAAAGAAAGACCAACACCTTCTCTGAATAATAATTGTACTACATCTGAGGATTCTTGGTCCT
TTACAATAGAGTGGCTGTTCAAGGAGATGTGGTTCGTGAATTAAGGCAAGAAAGCAACCAAGGAAGATGTAGA
TGCAGCTGTAAAACAGCTTTTGTCTTTGAAAGCTGAATATAAGGAGAAAACTGGCCAGGAATATAAACCTGGAAA
CCCTCCTGCTGAAATAGGACAGAATATTTCTTCTAATTCCTCAGCAAGTATTCTGGAAAGTAAATCTCTGTATGA
TGAAGTTGCTGCACAAGGGGAGGTGGTTCGTAAGCTAAAAGCTGAAAAATCCCCTAAGGCTAAAATAAATGAAGC
TGTAAGATGCTTACTGTCCCTGAAGGCTCAGTATAAAGAAAAAACTGGGAAGGAGTACATACCTGGTACGCCCCC
ATTATCTCAAAGTTCGGATTCAAGCCCAACCAGAAATTTCTGAACCTGCTGGTTTAGAAACACCAGAAGCGAAAGT
ACTTTTTGACAAAGTAGCTTCTCAAGGGGAAGTAGTTCCGGAACCTTAAAAGCTGAAAAAGCCCCCTAAGGATCAAGT
AGATATAGCTGTTCAAGAACTCCTTCAGCTAAAGGCACAGTACAAGTCTTTGATAGGAGTAGAGTATAAGCCTGT
GTCGGCCACTGGAGCTGAGGACAAAGATAAGAAGAAAGAAAAAGAAAAATAAATCTGAAAAGCAGAATAAGCC
TCAGAAACAAAATGATGGCCAAAGGAAAGACCCTTCTAAAAACCAAGGAGGTGGGCTCTCATCAAGTGGAGCAGG
AGAAGGGCAGGGGCTAAGAAACAGACCAGGTTGGGTCTTGAGGCAAAAAAAGAAAGAAATCTTGCTGATTGGTA
TTCTCAGGTATCACAAAGTCAGAAATGATTGAATACCATGACATAAGTGGCTGTTATATTCTTCGTCCCTGGGC
CTATGCCATTTGGGAAGCCATCAAGGACTTTTTTGATGCTGAGATCAAGAACTTGGTGTGAAAACCTGCTACTT
CCCCATGTTTGTGCTCAAAGTGCATTAGAGAAAGAGAAGACTCATGTTGCTGACTTTGCCCCAGAGGTTGCTTG
GGTTACAAGATCTGGCAAAACCGAGCTGGCAGAACCAATTGCCATTCTGCTCTACTAGTGAAAACAGTAATGTATCC
TGATATGCAAAATGGGTACAATCACACAGAGACCTGCCCATCAAGCTCAATCAGTGGTGCAATGTGGTGCCTTG
GGAATTCAAGCATCCTCAGCCTTTCTACGTACTCGTGAATTTCTTTGGCAGGAAGGGCACAGTGCTTTTGCTAC
CATGGAAGAGGCAGCGGAAGAGGTCTTGACATACTTGACTTATATGCTCAGGTATATGAAGAACTCCTGGCAAT
TCTGTGTTGTTAAAGGAAGAAAGACGGAAGGAAAAATTTGCAGGAGGAGACTATACAACCTACAATAGAAGCATT
TATATCTGCTAGTGAAGAGCTATCCAGGGAGGAACATCACATCATTAGGGCAGAATTTTCCAAATGTTTGA

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FIGURE 99B

AATCGTTTTGAAGATCCAAAGATACCAGGAGAGAAGCAATTTGCCTATCAAACTCCTGGGGCCTGACAACTCG
AACTATTGGTGTATGACCATGGTTCATGGGGACAACATGGGTTTAGTATTACCACCCGTGTAGCATGTGTTCA
GGTGGTGATTATTCCTTGTGGCATTACCAATGCACCTTCTGAAGAAGACAAAGAAGCGCTGATTGCAAAATGCAA
TGATTATCGAAGGCGATTACTCAGTGTTAACATCCGCGTTAGAGCTGATTTACGAGATAATTATTCTCCAGGTTG
GAAATTCAATCACTGGGAGCTCAAGGGAGTTCCCATTAGACTTGAAGTTGGGCCACGTGATATGAAGAGCTGTCA
GTTTGTAGCCGTCAGACGAGATACTGGAGAAAAGCTGACAGTTGCTGAAAATGAGGCAGAGACTAAACTTCAAGC
TATTTTGGAGACATCCAGGTCACCCTTTTCACAAGGGCTTCTGAAGACCTTAAGACTCATATGGTTGTGGCTAA
TACAATGGAAGACTTTCAGAAGATACTAGATTCTGGAAAGATTGTTTCAGATTCCATTCTGTGGGGAAATTGACTG
TGAGGACTGGATCAAAAAGACCACTGCCAGGGATCAAGATCTTGAACCTGGTGCTCCATCCATGGGAGCTAAAAG
CCTTTGCATCCCCTTCAAACCACTCTGTGAAGTGCAGCCTGGAGCCAAATGTGTCTGTGGCAAGAACCCTGCCAA
GTACTACACCTTATTTGGTCGCAGCTACTGAGGGATGAACGAAAGCCCCCTCTTCAACTCCTCTCACTTTTTAAA
GCATTGATATTAGTATCTTCTCAGATACAGACCGTTTTATGATTTTTTAAAAAGTAAAGTTCTAAAATGAAGTC
ACACAGGACAATTATTCTTATGCCTAAGTTAACAGTGGATAAAAGACTTTTCTGTAAACAACCTCCAGTAATAAAT
ATCATGAACCTA

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FIGURE 100

MEHTEIDHWLEFSATKLSSCDSFTSTINELNHCLSLRITYLVGNSLSLADLCVWATLKGNAAWQEQLKQKKAPVHV
KRWFGFLEAQQAFQSVGKWDVSTTKARVAPEKKQDVGKFVELPGAEMGKVTVRFPPEASGYLHIGHAKAALLNQ
HYQVNFKGKLMRFDDTNPEKEKEDFEKVILEDVAMLHIKPDQFTYTSDFETIMKYAEKLIQEGKAYVDDTPAE
QMKAREQRIESKHKRNPIEKNLQMWEEKKGSQFGHSCCLRAKIDMSSNNGCMRDPTLYRCKIQPHPRGTGNKYN
VYPTYDFACPIVDSIEGVTHALRTTEYHNRDEQFYWIEALGIRKPYIWEYSRLNLNNTVLSKRKLTWVNEGLV
DGWDDPRFPTVRGVLRRGMTVEGLKQFIAAQGSSRSVNMEDKIWAFNKKVIDPVAPRYVALLKKEVIPVNVPE
AQEEMKEVAKHPKNPEVGLKPVWYSPKVFIEGADAETFSEGEMVTFINWGNLNTIKIHKANADGKIIISLDAKFNLE
NKDYKKTTKVTWLAETTHALPIPVICVTYEHLITKPVLGKDEDFKQYVNKNSKHEELMLGDPCLKDLKKGDIQQL
QRRGFFICDQPYEPVSPYSCKEAPCVLIYIPDGHTKEMPTSGSKEKTKVEATKNETSAPFKERPTPSLNNNCTTS
EDSLVLYNRVAVQGDVVRELKAKKAPKEDVDAAVKQLLSLKAQYKEKTGQYKPGNPPAEIGQNISSNSSASILE
SKSLYDEVAAQGEVVRKLKAEKSPKAKINEAVECLLSLKAQYKEKTGKEYIPGQPPLSQSSDSSPTRNSEPAGLE
TPEAKVLFDKVASQGEVVRKLKTEKAPKDQVDIAVQELLQLKAQYKSLIGVEYKPVSATGAEDKDKKKKEKENKS
EKQNKPKQKNDGQRKDP SKNQGGGLSSSGAGEGQPKQTRLGLEAKKEENLADWYSQVITKSEMIEYHDISGCY
ILRPWAYAIWEAIKDFDAEIKKLGVENCYFPMFVSQSALEKEKTHVADFAPVAVWTRSGKTELAEPIAIRPTS
ETVMYPAYAKWVQSHRDLPIKLNQWCNVVRWEFKHPQPFRLTREFLWQEGHSAFATMEEAAEEVLQILDLYAQVY
EELLAIPVVKGRKTEKEKFAGGDYTTTIEAFISASGRAIQGGTSHHLGQNF SKMFEIVFEDPKIPGEKQFAYQNS
WGLTTRTIGVMTMVHGDNMGLVLPVRVACVQVVIIPCGITNALSEEDKEALIAKCNDRRRLLSVNIRVRADLRD
NYSFGWKFNHWELKGVP IRLEVGPDMKSCQFVAVRRDTGEKLTVAENEAETKLQAILEDIQVTLFTRASEDLKT
HVVANTMEDFQKILDSGKIVQIPFCGEIDCEDWIKKTARDQDLEPGAPSMGAKSLCIPFKPLCELQPGAKCVC
GKNPAKYTYTLFGRSY

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FIGURE 101

AGAATACACTCACAAAGCCACTCCGCTGCTCGCCTCTCCGCCCCGCGTCCAGCTCGCCCAGCTCGCCCAGCGTCCG
CCGCGCCTCGCCAAGGCTTCAACGGACCACACCAAAATGCCATCTCAAATGGAACACGCCATGGAAACCATGATG
TTTACATTTACAAAATTCGCTGGGGATAAAGGCTACTTAACAAAGGAGGACCTGAGAGTACTCATGGAAAAGGAG
TTCCCTGGATTTTTGGAAAATCAAAAAGACCCTCTGGCTGTGGACAAAATAATGAAGGACCTGGACCAGTGTAGA
GATGGCAAAGTGGGCTTCAGAGCTTCTTTTCCCTAATTGCGGGCCTCACCATTGCATGCAATGACTATTTTGT
GTACACATGAAGCAGAAGGGAAAGAAGTAGGCAGAAATGAGCAGTTCGCTCCTCCCTGATAAGAGTTGTCCAAAG
GGTCGCTTAAGGAATCTGCCCCACAGCTTCCCCCATAGAAGGATTTTCATGAGCAGATCAGGACACTTAGCAAATG
TAAAAATAAAATCTAACTCTCATTGACAAGCAGAGAAAGAAAAGTTAAATACCAGATAAGCTTTTGATTTTTGT
ATTGTTTGCATCCCTTGCCCTCAATAAATAAAGTTCTTTTGTAGTTCC

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FIGURE 102

MPSQMEHAMETMMFTFHKFAGDKGYLTKEDLRVLMEKEFPGFLENQKDPLAVDKIMKDLDQCRDGKVGFSFFSL
IAGLTIACNDYFVVHMKQKGKK

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FIGURE 103

CGCGTGAAC TGCTTCCTGCAGGCTGGCCATGGCGCTTCACGTTCCCAAGGCTCCGGGCTTTGCCAGATGCTCAA
GGAGGGAGCGAAACACTTTTCAGGATTAGAAGAGGCTGTGTATAGAAACATACAAGCTTGCAAGGAGCTTGCCCA
AACCACCTCGTACAGCATAIGGACCAAAAGGAATGAACAAAATGGTTATCAACCACCTTGGAGAAGTTGTTTGTGAC
AAACGATGCAGCAACTATTTTAAGAGAACTAGAAGTACAGCATCCTGCTGCAAAAATGATTGTAATGGCTTCTCA
TATGCAAGAGCAAGAAGTTGGAGATGGCACAAACTTTGTTCTGGTATTGCTGGAGCTCCTCGGAATTAGCTGA
AGAACTTCTGAGGATTGGCCTGTCAGTTTCAGAGGTCATAGAAGGTTATGAAATAGCCTGCAGAAAAGCTCATGA
GATTCTTCCTAATTGGTATGTTGTTCTGCAAAAACCTTCGAGATATTGATGAAGTCTCATCTCTACTTCGTAC
CTCCATAATGAGTAAACAATATGGTAATGAAGTATTTCTGGCCAAGCTTATTGCTCAGGCATGCGTATCTATTTT
TCCTGATTCCGGCCATTTCAATGTTGATAACATCAGAGTTTGTA AAAATCTGGGCTCTGGTATCAGTTCCTCTTC
AGTATTGCATGGCATGGTTTTTAAGAAGGAAACCGAAGGTGATGTAACATCTGTCAAAGATGCAAAAATAGCAGT
GTACTCTTGTCTTTTGATGGCATGATAACAGAACTAAGGGAACAGTGTGATAAAGACTGCTGAAGAATTGAT
GAATTTTAGTAAGGGAGAAGAAAACCTCATGGATGCACAAGTCAAAGCTATTGCTGATACTGGTGCAAATGTCGT
AGTAACAGGTGGCAAAGTGGCAGACATGGCTCTTCATTATGCAAATAAATATAATATCATGTTAGTGAGGCTAAA
CTCAAAATGGGATCTCCGAAGACTTTGTAAAACCTGTTGGTGCTACAGCTCTTCCTAGATTGACACCTCCTGTCT
TGAAGAAATGGGACACTGTGACAGTGTTCACCTCTCAGAAGTTGGAGATACTCAGGTGGTGGTTTTTAAGCATGA
AAAGGAAGATGGCGCCATTTCTACCATAGTACTTCGAGGCTCTACAGACAATCTGATGGATGACATAGAAAGGT
AGTAGACGATGGTGTAAATACTTTCAAAGTTCTTACAAGGGATAAACGCTTGTACCCGGAGGTGGAGCAACAGA
AATTGAATTAGCCAAACAGATCACATCATATGGAGAGACATGTCCTGGACTTGAACAGTATGCTATTAAGAAGTT
TGCTGAGGCATTTGAAGCTATTCCCCGCGCACTGGCAGAAAACCTCTGGAGTTAAGGCCAATGAAGTAATCTCTAA
ACTTTATGCAGTACATCAAGAAGGAAATAAAAACGTTGGATTAGATATTGAGGCTGAAGTCCCTGCTGTAAAGGA
CATGCTGGAAGCTGGTATTCTAGATACTTACCTGGGAAAATATTGGGCTATCAAACCTCGCTACTAATGCTGCAGT
CACTGTACTTAGAGTGGATCAGATCATCATGGCAAAACAGCTGGTGGGCCCAAGCCTCCAAGTGGGAAGAAAGA
CTGGGATGATGACCAAAATGATTGAAAATTGGCTTAATTTTTACTGTAGGTGAAGGCTGTATTGTAGTAGTACTC
AAGAATCACCTGATGTTTTCTTATTCTCCTTAAATTAAGAGTTATTTTGTGTTGTATTCTTGGCTGGATGTTAT
AATAAACATATTGTTACTGTC

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FIGURE 104

MALHVPKAPGFAQMLKEGAKHFSGLEEA VYRNIQACKELAQTTRTAYGPKGMNKMVINHLEKLFVTNDAATILRE
LEVQHPPAAKMIVMASHMQEQEVGDGTNFVLVFA GALLELA EELLRIGLSVSEVIEGYEIA CRKAHEILPNLVCCS
AKNLRDIDEVSSLLRTS IM SKQY GNEVFLAKLIAQACVSIFPDSGHFNVDNIRVCKILGSGISSSSVLHGMVFKK
ETEGDVT SVKDAKIAVYSCPF DGMITETKGTVLIKTAEELMNFSKGEENLMDAQVKAIADTGANVVVTGGKVADM
ALHYANKYNIMLVRLNSKWDLRRLCKTVGATALPRLTPPVLEEMGHCD SVYLSEVGD TQVVVFKHEKEDGAISTI
VLRGSTDNLMDDIERVVDDGVNTFKVLTRDKRLVPGGGATEIELAQITSYGETCPGLEQYAIKKFAEAFEIPR
ALAENSGVKANEVISKLYAVHQEGNK NVGLDIEAEVPAVKDMLEAGILD TYLGKYWAIKLATNAAVTVLRVDQII
MAKPAGGPKPPSGKKDWDDQND

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FIGURE 105

GGATCCGGCAACGAAGGTACCATGCGGGGACGTGGCCCATGGTGTGTTGCACGTGCTGTTTGTAGCACGCGGTC
GGCTACGCGCTCGTGGCGCTGAAGGAAGTGGAGGAGATCAGTCTGCTGCAGCCGAGGTGGAGGAGTCCGTGCTC
AACCTGGGCAAATTCACAGCATCGTTCGTCTGGTGGCCTTTTGTCCCTTTGCCTCATCCAGGTTGCCTTGAA
AATGCCAACGCCGTGTCTGAAGGGTTGTTTCATGAGGACCTCCGCCTGCTCTTGGAGACCCACCTGCCGTCCAAA
AAGAAGAAAGTACTCTTGGGAGTTGGGGATCCCAAGATTGGTGGCGCAATACAGGAGGAGTTAGGGTACAACCTGC
CAGACTGGAGGAGTCATAGCTGAGATCCTGCGAGGAGTTTCGTCTGCACTTCCACAATCTGGTGAAGGGTCTGACC
GATCTGTGAGCTTGTAAGCACAGCTGGGGCTGGGACACAGCTATTCCCGTGCCAAAGTTAAGTTTAAATGTGAAC
CGGGTGGACAATATGATCATCCAGTCCATTAGCCTCCTGGACCAGCTGGATAAGGACATCAATACCTTCTCTATG
CGTGTGAGGGAGTGGTACGGGTATCACTTTCCGGAGCTGGTGAAGATCATCAACGACAATGCCACATACTGCCGT
CTTGCCAGTTTATTGGAAACCGAAGGGAACTGAATGAGGACAAGCTGGAGAAGCTGGAGGAGCTGACAATGGAT
GGGGCCAAGGCTAAGGCTATTCTGGATGCCTCACGGTCTCCATGGGCATGGACATATCTGCCATTGACTTGATA
AACATCGAGAGCTTCTCCAGTCGTGTGGTGTCTTTATCTGAATACCGCCAGAGCCTACACACTTACCTGCGCTCC
AAGATGAGCCAAGTAGCCCCAGCCTGTGAGCCCTAATTGGGGAAGCGGTAGGTGCACGTCTCATCGCACATGCT
GGCAGCCTCACCAACCTGGCCAAGTATCCAGCATCCACAGTGCAGATCCTTGGGGCTGAAAAGGCCCTGTTTCAGA
GCCCTGAAGACAAGGGGTAACACTCCAAAATATGGACTCATTTCCTCACTCCACCTTCATTGGCCGAGCAGCTGCC
AAGAACAAGGCCGCATCTCCCGATACCTGGCAAACAATGCAGTATTGCCTCACGAATCGATTGCTTCTCTGAG
GTGCCCCAGAGTGTATTTCGGGGAGAAGCTTCGAGAACAAAGTTGAAGAGCGACTGTCTTCTATGAGACTGGAGAG
ATACCACGAAAGAAATCTGGATGTGATGAAGGAAGCAATGGTTTCAGGCAGAGGCAGAGGAAGCGGCTGCTGAGATT
ACTAGGAAGCTGGAGAAACAGGAGAAGAAACGCTTAAAGAAGGAAAAGAAACGGCTGGCTGCACTTGCCCTCGCG
TCTTCAGAAAACAGCAGTAGTACTCCAGAGGAGTGTGAGGAGACGAGTGAAAAACCCAAAAAGAAAGAAAGCAA
AAGCCCCAGGAGGTTCTCAGGAGAATGGAATGGAAGACCCATCTATCTCTTTCTCCAAACCCAAAGAAAAAGAAA
TCTTTTTTCAAGGAGGAGTTGATGAGTAGCGATCTTGAAGAGACCGCTGGCAGCACCAGTATTCCCAAGAGGAAG
AAGTCTACCCCAAGGAGGAAACAGTTAATGACCTGAGGAGGCAGGCCACAGAAGTCGGTCCAAGAAAAAGAGG
AAATTCTCCAAAGAGGAGCCGGTCAGCAGTGGGCCGTAAGAGGCGGTTGGCAAGAGCAGCTCCAAGAAGAGAAA
AAGTTCCATAAAGCATCCAGGAAGATTAGCAATGCAAAATGGACATTCTCTGGGAGGTGGGGCATAACCATAGCCCA
AGGTGACATTTCCACCTGTGCCCGTGTTCCTCAATAAAAAACAAATTCACAAGAAAAAAAAAAAAAAAAAAAAA
TTCTGAGGCCGCAAGGAATTC

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FIGURE 106

MAGRGAMVLLHVLFEHAVGYALVALKEVEEISLLQPQVEESVLNLGKFHSIVRLVAFCPFASSQVALENANAVSE
GVVHEDLRLLLETHLPSSKKKVLLGVGDPKIGAAIQEELGYNCQTGGVIAEILRGVRLHFHNLVKGLTDLSACKA
QLGLGHSYSRAKVKFVNVNRVDNMIIQSISLLDQLDKDINTFSMRVREWYGYHFPPELVKIINDNATYCRLAQFIGN
RRELNEDKLEKLEELTMDGAKAKAILDASRSSMGMDISAIIDLINIESFSSRVVSLSEYRQSLHTYLRSKMSQVAP
SLSALIGEAVGARLIAHAGSLTNLAKYPASTVQILGAEKALFRALKTRGNTPKYGLIFHSTFIGRAAAKNKGRIS
RYLANKCSIASRIDCFSEVPTSVFGEKLREQVEERLSFYETGEIPRKNLDVMKEAMVQAEAEAAAAEITRKLEKQ
EKKRLKKEKKRLAALALASSESSSTPEECEETSEKPKKKKKQKPQEVPOENGMEDPSISFSKPKKKKSFKEEL
MSSDLEETAGSTSIPKRKKSTPKEETVNDPEEAGHRSRSKKKKRFSKEEPVSSGPEEAVGKSSSKKKKKFHKASQ
ED

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FIGURE 107

CGCAGCCGTGCGATGTTGTCCTCTACAGCCATGTATTTCGGCTCCTGGCAGAGACTTGGGGATGGAACCGCACAGA
GCCGCGGGCCCTTTGCAGCTGCGATTTTCGCCCTACGTTTTCAACGGAGGTACTATACTGGCAATTGCTGGAGAA
GATTTTGCAATTGTTGCTTCTGATACTCGATTGAGTGAAGGGTTTTCAATTCATACGCGGGATAGCCCCAAATGT
TACAAATTAACAGACAAAACAGTCATTGGATGCAGCGGTTTTCATGGAGACTGTCTTACGCTGACAAAGATTATT
GAAGCAAGACTAAAGATGTATAAGCATTCCAATAATAAGGCCATGACTACGGGGGCAATTGCTGCAATGCTGTCT
ACAATCCTGTATTCAAGGCGCTTCTTCCATACTATGTTTACAACATCATCGGTGGACTTGATGAAGAAGGAAAG
GGGGCTGTATACAGCTTTGATCCAGTAGGGTCTTACCAGAGAGACTCCTTCAAGGCTGGAGGCTCAGCAAGTGCC
ATGCTACAGCCCCGTGCTTGACAACCAGGTTGGTTTTAAGAACATGCAGAATGTGGAGCATGTTCCGCTGTCCTTG
GACAGAGCCATGCGGCTGGTGAAAGATGTCTTCATTTCTGCGGCTGAGAGAGATGTGTACACTGGGGACGCACTC
CGGATCTGCATAGTGACCAAAGAGGGCATCAGGGAGGAACTGTTTCCTTAAGGAAGGACTGATCTGTGTGCTCT
TATCACCAATCAGTTCAGACCTGGTTGATTTTGTACTTTGGAACGTACCTTGATGGTTTTGTTTATTAAAA

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FIGURE 108

MLSSTAMYSAPGRDLGMEPHRAAGPLQLRFSPYVFNGGTILAIAGEDFAIVASDTRLSEGFSIHTRDSPKCYKLT
DKTVIGCSGFHGDCLTLTKIIEARLKMYKHSNNKAMTTGAIAAMLSTILYSRRFFPYVYNIIGGLDEEGKGAVY
SFDPVGSYQRDSFKAGGSASAMLQPLLDNQVGFKNMQNVEHVPLSLDRAMRLVKDVFISAAERDVYTGDAIRICI
VTKEGIREETVSLRKD

ATGCCCGAGAATGTGGCACCCCGGAGCGGGGCGACTGCCGGGGCTGCCGGCGCCCGGGGAAAGGCGCCTATCAG
GACCGCGACAAGCCAGCCAGATCCGCTTCAGCAACATTTCCGCCGCCAAAGCGTTGCTGATGCTATTAGAACA
AGCCTTGGACCAAAAGGAATGGATAAAATGATTCAAGATGGAAGGTGATGTAACCATTACAAATGATGGTGCT
ACCATTCTGAAACAAATGCAAGTATTACATCCAGCAGCCAGAATGCTGGTGGAGCTGTCTAAGGCTCAAGATATA
GAAGCAGGAGATGGCACCACATCAGTAGTCATCATTGCTGGCTCCCTCTTAGATTCTTGTAACCAAGCTTCTTCAG
AAAGGGATTTCATCCAACCATCATTTCTGAGTCATTCCAGAAGGCCCTGAAAAGGGCATTGAAATCTTGACTGAC
ATGTCTCGACCTGTGGAACGTAGTGACAGAGAACTTTGTTAAATAGTGCAACCACTTCACTGAACTCAAAGGTG
GTTTCTCAGTATTCAGTCTGCTTTTCTCCAATGAGTGTAATGCAGTGATGAAAGTGATTGACCCAGCCACAGCC
ACCAGTGTAGATCTTAGAGATATTAATAAGTAAAGCTTGGTGGGACAATTGATGACTGTGAGTTGGTGGAA
GGGCTGGTTCTCACCAAAAAGTGTCAAATTCTGGCATAACCAGAGTTGAAAAGGCCAAGATTGGGCTTATTTCAG
TTTTGCTTATCTGCTCCCAAAACAGACATGGATAATCAAATAGTGGTTTCTGACTATGCCCAGATGGACCGAGTG
CTGCGAGAAGAGAGAGCCTATATTTTAAATTTAGTGAAGCAAATTAACAAAAACAGGATGTAATGTCTTCTCATA
CAGAAATCTATTCTAAGAGATGCTCTTAGTGATCTTGCATTACACTTTCTGAATAAAATGAAGATCATGGTGATT
AAGGATATTGAAAGAGAAGACATTGAATTCATTTGTAAGACAATTGGAACCAAGCCAGTTGCTCATATTGACCAA
TTTACTGCTGACATGCTGGGTTCTGCTGAGTTAGCTGAGGAGGTCAATTTAAATGGTTCGGCAAACCTGCTCAAG
ATTACAGGCTGTGCCAGCCCTGGAACCAAGCTTACAATTGTTGTTCTGTTGTTCTAACAACCTGGTGATTGAAGAA
GCTGAGCGCTCCATTCATGATGCCCFATGTGTTATTCTGTTGTTTAGTGAAGAAGAGGGGCTCTTATTGCAGGAGGT
GGTGCTCCAGAAATAGAGTTGGCCCTAGCATTAACTGAATATTCACGAACACTGAGTGGTATGGAATCCTACTGC
GTTCTGCTGCTTTTGCAGATGCTATGGAGGTTCATTCCATCTACACTAGCTGAAAATGCCGGCCTGAATCCCATTCT
ACAGTAACAGAACTAAGAAACCGCATGCCAGGGAGAAAAAACTGCAGGCATTAATGTCCGAAAGGGTGGTATT
TCCAACATTTTGGAGGAACCTGGTTGTCCAGCCTCTGTTGGTATCAGTATGCTCTGACTCTTGCAACTGAAACT
GTTCCGAGCATTTCTGAAAATAGATGATGTGTTAAACACTCGATAAATCTGGATAACTGACTAGCACCATTATGATC
ACCGATATTGTGGCTGGAATGGAAGAAGATACCTTGGTGTTCTTGTGTTTGGAAAGATTATTTCTCTGAATTTCT
GGGCTTGGTCTTCCAGTTGGCATTGTGCTGAAGTTGATTGAAACAATTTAATGAAAATATTAATATTTGGTTT
CAAAAGGCAGATTTATCTTCTCCCAACATTCTGTTATTTCTGATACTTTTGAACCACTAATAAACTAATAAA
GAAGCGTA

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FIGURE 110

MPENVAPRSGATAGAAGGRGKGAYQDRDKPAQIRFSNISAACAVADAIRTS LGPKGMDKMIQDGKGDVTITNDGA
TILKQMQLVHHPAARMLVELSKAQDIEAGDGTTSVVIIAGSLLDSCTKLLQKGIHPTIISESFQKALEKGIEILTD
MSRPVELSDRETLNSATSLNSKVVSQYSSLLSPMSVNAVMMKVIDPATATSVDLRDIKIVKKLGGTIDDCELVE
GLVLTQKVSNSGITRVEKAKIGLIQFCLSAPKTDMDNQIVVSDYAQMDRVLREERAYILNLVKQIKKTGCNVLLI
QKSILRDALSDLALHFLNKMIMVIKDIEREDIEFICKTIGTKPVAHIDQFTADMLGSAELAEVNLNGSGKLLK
ITGCASPGKTVTIVVRGSNKLVIEEAERSIHDALCVIRCLVKKRALIAGGGAPEIELALALTEYSRTLSGMESYC
VRAFADAMEVIPSTLAENAGLNPISTVTELRNRHAQGEKTAGINVRKGGISNILEELVVQPLLVSVSALTTLATET
VRSILKIDDVVNTR

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FIGURE 111

CTGCGGCGCGCCGGGCGGAACTTTCTAGAACGCTCGGTGAGAGGCGGAGGAGCGGTAACACCCCGGCTGCGCAC
AGCTCGGCGCTCCTTCCCGCTCCCTCACACACCGGCTCAGCCCGCACCGGCAGTAGAAGATGGTGAAAGAAACA
ACTTACTACGATGTTTTGGGGGTCAAACCCAATGCTACTCAGGAAGAATTGAAAAAGGCTTATAGGAAACTGGCT
TTGAAGTACCATCCTGATAAGAACCCAAATGAAGGAGAGAAGTTTAAACAGATTTCTCAAGCTTACGAAGTTCTC
TCTGATGCAAAGAAAAGGGAATTATATGACAAAGGAGGAGAACAGGCAATTAAAGAGGGTGGAGCAGGTGGCGGT
TTTGGCTCCCCATGGACATCTTTGATATGTTTTTTGGAGGAGGAGGAAGGATGCAGAGAGAAAGGAGAGGTAAA
AATGTTGTACATCAGCTCTCAGTAACCTTAGAAGACTTATATAATGGTGCAACAAGAAAAGTGGCTCTGCAAAAG
AATGTGATTTGTGACAAATGTGAAGGTAGAGGAGGTAAAGAAAGGAGCAGTAGAGTGCTGTCCCAATTGCCGAGGT
ACTGGAATGCAAATAAGAATTCATCAGATAGGACCTGGAATGGTTCAGCAAATTCAGTCTGTGTGCATGGAGTGC
CAGGGCCATGGGGAGCGGATCAGTCTAAAGATAGATGTAAAGCTGCAACGGAAGGAAGATAGTTTCGAGAGAAG
AAAATTTTAGAAGTTCATATTGACAAAGGCATGAAAGATGGCCAGAAGATAACATTCCATGGTGAAGGAGACCAA
GAACAGGACTGGAGCCAGGCGATATTATCATTGTGTAGATCAGAAGGACCATGCTGTGTTTTACTCGACGAGGA
GAAGACCTTTTTCATGTGTATGGACATACAGCTCGTTGAAGCACTGTGTGGCTTCCAGAAGCCAATATCTACTCTT
GACAACCGAACCATCGTCATCACCTCTCATCCAGGTGAGATTGTCAAGCATGGAGATATCAAGTGTGTACTAAAT
GAAGGCATGCCAATTTATCGTAGACCATATGAAAAGGGTCGCCAATCATCGAATTTAAGGTAAACTTTCTGAG
AATGGCTTTCTCTCTCTGATAAACTGTCTTTGCTGGAAAACTCCTACCCGAGAGGAAGGAAGTGAAGAGACT
GATGAGATGGACCAAGTAGAACTGGTGGACTTTGATCCAAATCAGGAAAGACGGCGCCACTACAATGGAGAAGCA
TATGAGGATGATGAACATCATCCAGAGGTGGTGTTCAGTGTGACACCTCTTAATGGGCCAGTGAATAACACTCA
CTGCTGGCATTAAATGTGCAGTAGTGAATGAGTGAAGGACTGTAATCATAATATGCTCACTACTTGTCTTGT
TTGTTTTAATAAACTATAGTAGTGTGTTTTAAAAAGTTAAATGAAGAATAAACGCAAATATAAAAGCTCTGATTTG
CCCTGTATGTATGATGACTTCAGTGTGCAAGATGAAGTTTAACTGTAATAAACTACAAAGAAGTTCCCTTAGC
ATTTCTAGGCCAAACCTTGTAATTGACTTCAGCTATGTACGTGGACAAGCTTAGACTGAAATGCTAGGTATATGT
ATTGGCTTCAGTGTATGACCCCTTCATTGTTAAGCTATGAAAGTAAACTCTGTATTTAACTGGCAATGAGGAAAA
AAAAATTTGTAGAGAAGTGTGGTCTGTATAGTTCTTTATATTAAGTGGGATTCATTGTAATGCCTCTGCATTT
ATTCTGTTGCCTCAGCTGTTACTTGAAGATGGCGTAATATATAATTTATCCTGTGGTATCAGTGATAAAATGAT
ACCTTTCTGTAGGAGGGGTTTATCATAATATGCTGCTTCTTGAAGGCTTGCACTTCCAGAATTGTGTTTCTTCT
GCTGTGCCATTATATATATATACATATATATATATAATCTTGACCAGTCCTGGTCATTTGCTCCCTCCTTGTC
TGTGGACCATGATAAGCCCAAGTAGTGACTTCAGAGCTGGGTAACAGAAATTAAAGTGAAAAGACCTTTACGTGG
AGAATTTGCATGCGTAATATAGGAAGGTGTTCTTTAGGTATGTTACAGGATTACTTTAAACCATTGACTTTTCGC
TCCAAAGTTATGTTGGTAGTATAGCAAATTATGATGAATAGCTTTAATTGTATGTTAAAAGTCTCATATGTTCA
CATGCTTAAATCTGGGTATCAGAATTTAAGCAATCTTGAATGTATTGTCTCCTTAATATACTAATTACAAAGC
ATCTCCAATGTGTGTCACTACAGGCTTTTTTTTCCAGATCATCAAATTTGGCTTTTAACTAAGATACATAGCT
TTATTTTAGCTAGTCTGAATGAGTGATACAAAAATACTATTGAACTATAGTTAAATAATATTAAATAGGATGGAG
AGTAAAGTGGAGGACTGGGTAATGAGCCAAGAAGAAGGGTG

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FIGURE 112

MVKETYYDVLGVKPNATQEELKKAYRKLALKYHPDKNPNEGEKFKQISQAYEVLSDAKKRELYDKGGEQAIKEG
GAGGGFGSPMDIFDMFFGGGGRMQRERRRGKNVVHQLSVTLEDLYNGATRKLALQKNVICDKCEGRGGKKGAVECC
PNCRGTMQIRIHQIGPGMVQQIQSVCMECQGHGERISPKDRCKSCNGRKIVREKKILEVHIDKGMKDGQKITFH
GEGDQEPGLEPGDIIIVLDQKDHAVFTRRGEDLFMCMDIQLVEALCGFQKPISTLDNRTIVITSHPGQIVKHGDI
KCVLNEGMPYIYRRPYEKGRLLIEFKVNFPENGFLSPDKLSLLEKLLPERKEVEETDEMDQVELVDFDPNQERRRH
YNGEAYEDDEHHPRGGVQCQTS

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FIGURE 113

CGGTAAC TACCCG GCTGCGCACAGCTCGGCGCTCCTTCCCGCTCCCTCACACACCGCCTCAGCCCGCACCGGCA
GTAGAAG ATGGT GAAAGAAACAACCTTACTACGATGTTTTGGGGGTCAAACCCAATGCTACTCAGGAAGAATTGAA
AAAGGCTTATAGGAAACTGGCCTTGAAGTACCATCCTGATAAGAACCCAAATGAAGGAGAGAAGTTAAACAGAT
TTCTCAAGCTTACGAAGTTCTCTCTGATGCAAAGAAAAGGGAATTATATGACAAAGGAGGAGAACAGGCAATTAA
AGAGGGTGGAGCAGGTGGCGTTTTTGGCTCCCCCATGGACATCITTGATATGTTTTTTGGAGGAGGAGGAAGGAT
GCAGAGAGAAAGGAGAGGTAAAAATGTTGTACATCAGCTCTCAGTAACCCTAGAAGACTTATATAATGGTGCAAC
AAGAAAAC TGGCTCTGCAAAGAATGTGATTGTGACAAATGTGAAGGTAGAGGAGGTAAGAAAGGAGCAGTAGA
GTGCTGTCCCAATTGCCGAGGTACTGGAATGCAAATAAGAATTCATCAGATAGGACCTGGAATGGTTCAGCAAAT
TCAGTCTGTGTGCATGGAGTGCCAGGGCCATGGGGAGCGGATCAGTCCTAAAGATAGATGTAAAAGCTGCAACGG
AAGGAAGATAGTTTCGAGAGAAGAAAATTTTAGAAGTTTCATATTGACAAAGGCATGAAAGATGGCCAGAAGATAAC
ATTCCATGGTGAAGGAGACCAAGAACCAGGACTGGAGCCAGGCGATATTATCATTGTGTAGATCAGAAGGACCA
TGCTGTTTTTACTCGACGAGGAGAAGACCTTTTCATGTGTATGGACATACAGCTCGTTGAAGCACGTGTGTGGCTT
CCAGAAGCCAATATCTACTCTTGACAACCGAACCATCGTCATCACCTCTCATCCAGGTCAGATTGTCAAGCATGG
AGATATCAAGTGTGTACTAAATGAAGGCATGCCAATTTATCGTAGACCATATGAAAAGGGTCGCCTAATCATCGA
ATTTAAGGTAACTTTCTGAGAATGGCTTTCTCTCTCCTGATAAACTGTCTTTGCTGGAAAACTCCTACCCGA
GAGGAAGGAAGTGGAAGAGACTGATGAGATGGACCAAGTAGAACTGGTGGACTTTGATCCAAATCAGGAAAGACG
GCGCCACTACAATGGAGAAGCATATGAGGATGATGAACATCATCCCAGAGGTGGTGTTCAGTGTGAGACCTCTTA
ATGGCCAGTGAATAACACTCACTGCTGGCATTTAATGTGCAGTAGTGAATGAGTGAAGGACTGTAATCATAATAT
GCTCACTACTTGCTCTTGTTTTGTTTTAATAAACTATAGTAGTGTATAAAAAGTTAAATGAAGAATAAACGCA
AATATAAAAGCTC

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FIGURE 114

MVKETTYDVLGVKPNATQEELKKAYRKLALKYHPDKNPNEGEKFKQISQAYEVLSDAKKRELYDKGGEQAIKEG
GAGGGFGSPMDIFDMFFGGGGRMQRERRGKNVVHQLSVTLEDLYNGATRKLALQKNVICDKCEGRGGKKGAVECC
PNCRGTMQIRIHQIGPMVQQIQSVCMQCQGHGERISPKDRCKSCNGRKIVREKKILEVHIDKGMKDGGKITFH
GEGDQEPGLEPGDIIIVLDQKDHAVFTRRGEDLFMCMDIQLVEALCGFQKPISTLDNRTIVITSHPGQIVKHGDI
KCVLNEGMPYIYRRPYEKGRLLIEFKVNFPENGFLSPDKLSLLEKLLPERKEVEETDEMDQVELVDFDPNQERRRH
YNGEAYEDDEHHPRGGVQCQTS

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FIGURE 115

GGGCGGGGTGCCGCATCCCCAGCCCGCCGCCATGGCCGCTACAAACTGGTGCTGATCCGGCACGGCGAGAGCGC
ATGGAACCTGGAGAACCCTTCAGCGGCTGGGTACGACGCCGACCTGAGCCCGGCGGGCCACGAGGAGGCGAAGCG
CGGCGGGCAGGCGCTACGAGATGCTGGCTATGAGTTTGACATCTGCTTCACCTCAGTGCAGAAGAGAGCGATCCG
GACCCCTCTGGACAGTGCTAGATGCCATTGATCAGATGTGGCTGCCAGTGGTGAGGACTTGGCGCCTCAATGAGCG
GCACTATGGGGGTCTAACCCTCTCAATAAAGCAGAACTGCTGCAAAGCATGGTGAGGCCAGGTGAAGATCTG
GAGGCGCTCCTATGATGTCCCACCACCTCCGATGGAGCCCCGACCATCCTTTCTACAGCAACATCAGTAAGGATCG
CAGGTATGCAGACCTCACAGAAGATCAGTACCCTCCTGTGAGAGICTGAAGGATACTATTGCCAGAGCTCTGCC
CTTCTGGAATGAAGAAATAGTTCCCCAGATCAAGGAGGGGAAACGTGTACTGATTGCAGCCCCATGGCAACAGCCT
CCGGGGCATTGTCAAGCATCTGGAGGGTCTCTCTGAAGAGGCTATCATGGAGCTGAACCTGCCGACTGGTATTCC
CATTGTCTATGAATTGGACAAGAAGCTTGAAGCCTATCAAGCCCATGCAGTTTCTGGGGGATGAAGAGACGGTGCG
CAAAGCCATGGAAGCTGTGGCTGCCAGGGCAAGGCCAAGAAGTGAAGGCCGGCGGGGAGGATACTGTCCCCAGG
AGCACCTCCCTGCCCGTCTTGTCCCTCTGCCCCCTCCACCTGCACATGTCACACTGACCACATCTGTAGACATC
TTGAGTTGTAGCTGCAGACGGGGACCAGTGGCTCCCATTTTCATTTTAGCCATTTTGTGCGCTGCACCCACTCCC
TTCATACAATCTAGTCAGAAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAAGCTATGGAAAAGCTCCCCATTATC
CAACAGAGTTTAAAAGTAGTGACTTGGGTTTTTGCGAGTGCTTTGTTTACTAAGGACTTTGGGGAGGAACCATGC
TAAGCCATGACCAGTGAGGAGAAGCAACAGAGCCTGTCTGTCCCCATGAGCGGAGTCTGTCTCTGCTCTTCTGC
AGTCAGGTCACTGCCTACTGCCTGGGGGCTCTAGTCATTCCAGTGGAAGACGAATGTAACCTGCGTGGTGATGTG
ACAACTGTTTCCTCCCTGACCCAGAGGATCTGGCTCTAGGTTGGGATCAATCCTGAATTTGTTATGTGTTAAT
TTACTTTTATTAAGAAAGTATAGTATATATAATAACAAACAATAACCCCTTCTGGGGTTTCTTGTGGCGGTTGAAA
TAGTCCCACATGTGGTCATCAGAAATAGCATTCTCATACCAATATAGGATCAGCTCCTTGACCTCTGAGGGGTC
AGGAGTGCTTCCTGGTGTGTGATTAGAATCCCTTCCTGCCTTGTTCATGGCAGTGAAATGCCTCTTGGTCTGTG
TCCAGTGIATCTTCACTGATTTCTGAATCATGTTCTAGTTGCTTGACCCTGCCACATGGGTCCAGTGTTCATCT
GAGCATAACTGTACTAAATCCTTTTTCCATATCAGTATAATAAAGGAGTGATGTGCAAT

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FIGURE 116

MAAYKLVLRHGESAWNLENRFSGWYDADLSPAGHEEAKRGGQALRDAGYEFDICFTSVQKRAIRTLWTVLDAID
QMWLPVVRTWRLNERHYGGLTGLNKAETAAKHGAEQVKIWRRSYDVPPPPMEPDHFPYSNISKDRRYADLTEDQL
PSCESLKDTIARALPFWNEEIVPQIKEGKRVLIAAHGNSLRGIVKHLEGLSEEAIMELNLPTGIPIVYELDKNLK
PIKPMQFLGDEETVRKAMEAVAAQGKAKK

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FIGURE 117

GAATTCGGCACGAGGGCGACCGGCGCGTCGTGCGGGGCTGCGGCGGAGCCTCCTTAAGGAAGGTGCAAGAGGTTG
GCAGCTTCGATTGAAGCACATCGACCGGCGACAGCAGCCAGGAGTCATGAGCGACAGCGCGAGCAGAACTACGG
CGAGCGGGAATCCCGTTCTGCTTCCAGAAGTGGAAGTGCTCACGGATCGGGGAAATCTGCAAGGCATACCCCTGC
AAGGTCTCGCTCCAAGGAAGATTCCAGGCGTTCCAGATCAAAGTCCAGGTCCCGATCTGAATCTAGGTCTAGATC
CAGAAGAAGCTCCCGAAGGCATTATACCCGGTCACGGTCTCGCTCCCGCTCCCATAGACGATCACGTAGCAGGTG
TTACAGTCGAGATTATCGTAGACGGCACAGCCACAGCCATTCTCCCATGTCTACTCGCAGGCGTCATGTTGGGAA
TCGGGCAAATCCTGATCCTAACTGTTGTCTTGGAGTATTGGGCTGAGCTTGACACCACAGAAAGAGATCTAAG
AGAAGTGTTCTCTAAATATGGTCCCATTGCCGATGTGTCTATTGTATATGACCAGCAGTCTAGGCGTTCAAGAGG
ATTTGCCTTTGTATATTTGAAAATGTAGATGATGCCAAGGAAGCTAAAGAACGTGCCAATGGAATGGAGCTTGA
TGGGCGTAGGATCAGAGTTGATTTCTCTATAACAAAAAGACCACATACGCCAACACCAGGAATTTACATGGGGAG
ACCTACCTATGGCAGCTCTCGCCGTCGGGATTACTATGACAGAGGATATGATCGGGGCTATGATGATCGGGACTA
CTATAGCAGATCATAACAGAGGAGGAGGTGGAGGAGGAGGAGGATGGAGAGCTGCCCAAGACAGGGATCAGATTTA
TAGAAGGCGGTCACCTTCTCCTTACTATAGTCGTGGAGGATACAGATCACGTTCCAGATCTCGATCATACTACC
TCGTCGCTATTAAAGCATGAAGACTTTCTGAAACCTGCCCTAGAGCTGGGATATTGTTTGTGGCAATATTTTTT
ATTGTCCTTTGTTTAAAAAGTGAACAGTGCCTAGTGAAGTTAGGTGACTTTTACACCTTTTACGATGACTACTTT
TGGTGGAGTTGAAATGCTGTTTTCACTTGCAATTTGTGTAGTTTGGTGCTTTGTTCCAAGTTAAGTGTTCAG
AAAGTATGTTTTGCATGTATTTTTTACAGTCTAAATTTTACTGCTGAGAAGTTTCTATTGTACAAAACCTTCAT
TTAAAAGGTTTTTCTACTGAATCCAGGGTATTCTGAAGATCGAAGCCTGTGTAAATGCTACCAAATGGCAAAAA
GCAACAATAAACAGTTTGATTTTTTACTTTTCTTCTAACATATCAATGCTTAGCAGAACTATTGAGATTGTCAGT
AGTAAATTTAAAGACAAATGCCCGTTTTCTCCAGTCCATGAAACATACCATACTTATATACCTGCAACTAAGTG
TTTTAAATTTATGCTCTGTAACTCTGTACTGCTAGTATTAGAACTAAAAATCTTAAATACAGCCAGTGCTTAATG
CTTATATCAATGTGGATTTGTCGGCTTTTTATGTAATCTGTAATATGTATAGCAGGAAATACGAAGAGTTACACAG
TGATATGCCTTAAAGGCTGTTTCTTAAAGGTGTTACAAGGGGATAATGGTATTTCAACTAGTTATCAGCAAGTGA
CAATACATTCACCACAAATACACTCTTGTTCTTCTAGCTTTTAGACTATATGAAAAAACGGGTGCTTCAAAGT
ACATGATAAGGGAACACTATACCTGTCATGGATGAAGTGAAGACTTTGCCTGTTTCAATTTTTTAAATATTATTTTC
AGGTCTTTTGCTTACCAAAGGAGGCCCAATTTCACTCAAATGTTTTGAGAACTGTGTTAAATAAACGCAAATGA
AAAGAAAAAAAAAAAAAAAAAAAA

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FIGURE 118

MSDSGEQNYGERESRSASRSGSAHGSGKSARHTPARSRSKEDSRRSRSKSRSESRSRSSRRHYTRSRRS
RSHRRSRRSYSRDYRRRHSHSHSPMSTRRRHVGNRANPDNCCLGVFGLSLYTTERDLREVFSKYGPIADVSI
YDQQRSSRGFAFVYFENVDDAKEAKERANGMELDGRRIRVDFSITKRPHPTPGIYMGREPTYGSSRRRDYYDRG
YDRGYDDRDYYSRSGGGGGGGWRAAQDRDQIYRRRSPSPYYSRGGYRSRSRSYSPPRY

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FIGURE 119

ATACACGTGCCAIGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCTTCCCAGCCCAC
CATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTGGTTGCTGCTGT
GATATGGAGGAAGAAGAGCTCAGGTGGAAGAGGAGGAGCTACTCTAAGGCTGAGTGGAGCGACAGTGGCCAGGG
GTCTGAGTCTCACAGCTTGTAAGCCTGAGACAGCTGCCTTGTGTGCGACTGAGATGCACAGCTGCCTTGTGTGC
GACTGAGATGCAGGATTTCTCAGCCTCCCCCTATGTGICTTAGGGGACTCTGGCTTCTCTTTTIGCAAGGGCCT
CTGAATCTGTCTGTGTCCCTGTAGCAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGTCTACCATGACC
CCCTTCTCAGACTGACCTGTGTTCTTCCCTGTTCTCTTTTCTATTAAAAATAAGAACCTGGGCAGAGTGCGGC
AGCTCATGCTGTAAATCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGATCGAAACCATCC
TGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCTGGGCGCAGAGGCACGGGCCTGTAG
TCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTGAGCCAGGATTG
TGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAAATTAAAAATAAAAAAAGAA
CCTGGATCTCAATTTAATTTTTCATATTCTTGCAATGAAATGGACTTGAGGAAGCTAAGATCATAGCTAGAAATA
CAGATAATTCCACAGCACATCTCTAGCAAATTTAGCCTATTCTCTAGCCTATTCTTACCACCTGTAAT
CTTGACCATAACCTTGGAGTTGAATATTGTTTTCATACTGCTGTGGTTTGAATGTTCCCTCCAACACTCATGTT
GAGACTTAATCCCTAATGTGGCAATACTGAAAGGTGGGGCCTTTGAGATGTGATTGGATCGTAAGGCTGTGCCTT
CATTATGGGTTAATGGATTAAATGGGTTATCACAGGAATGGGACTGGTGGCTTTATAAGAAGAGGAAAAGAGAAC
TGAGCTAGCATGCCCCAACCACAGAGAGCCTCCACTAGAGTGATGCTAAGTGGAATGTGAGGTGCAGCTGCCAC
AGAGGGCCCCCACCAGGGAATGTCTAGTGTCTAGTGGATCCAGGCCACAGGAGAGAGTGCCTTGTGGAGCGCTG
GGAGCAGGACCTGACCACCACCAGGACCCAGAAGTGTGGAGTCAGTGGCAGCATGCAGCGCCCCCTTGGGAAAG
CTTTAGGCACCAGCCTGCAACCCATTGAGCAGCCACGTAGGCTCGACCCAGCAAAGCCACAGGCACGGGGCTAC
CTGAGGCCTTGGGGGCCAATCCCTGCTCCAGTGTGTCCGTGAGGCAGCACACGAAGTCAAAAGAGATTATCTCTT
CCCACAGATACCTTTTCTCTCCCATGACCTTTAACAGCATCTGCTTCATTCCCTCACCTTCCCAGGCTGATCT
GAGGTAACTTTGAAGTAAAATAAAAGCTGTGTTTGAGCATC

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FIGURE 120

ATGGGGCATCGGCCGGTGCTCGTGCTCAGCCAGAACAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAAC
ATCAATGCTGCCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTG
GACCCAATGGGAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCG
GCCAAGTCCATGATCGAAATTAGCCGGACCCAGGATGAAGAAGTTGGAGATGGGACCACATCAGTAATTATTCTT
GCAGGGGAAATGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTAC
CGCAAGGCATTGGATGATATGATCAGCACCCCTAAAGAAAATAAGTATCCCAGTGCACATCAGTGACAGTGATATG
ATGCTGAACATCATCAACAGCTCTATTACTACCAAAGCCATCAGCCGGTGGTCATCTTTGGCTTGCAACATTGCC
CTGGATGCTGTCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTG
GAAAAGATACCTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCAT
CCACGTATGCGGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGGA
AGCCAGACTGACATTGAGATTACAGGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAG
CAGCTCTGTGAGGACATTATCCAAGTGAAGCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAG
CACTACCTTATGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACAGACAATAATCGCATTGCTAGAGCC
TGTGGGGCCCGGATAGTCAGCCGACCAGAGGAAGTGAAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAA
ATCAAGAAAATTGGAGATGAATACTTTACTTTTCATCACTGACTGCAAAGACCCCAAGGCCCTGCACCATTCTCCTC
CGGGGGGCTAGCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTGCAATGTT
CTCCTGGACCCTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGCGCCCATGCCCTTGACAGAAAAATCC
AAGGCCATGACTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCAGGGCCCTAGAGGTCAATCCTCGTACCCTG
ATCCAGAAGTGTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGGCCAAGCACACCCAGGAGAACTGTGAG
ACCTGGGGTGTAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAAGTGGGCATATGGGAGCCATTGGCTGTG
AAGCTGCAGACTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCAC
AAAAAGAAAGGCGATGACCAGAGCCGGCAAGGCGGGGCTCCTGATGCTGGCCAGGAGTGAAGTCTAGGCAAGGCT
ACTTCAATGCACAGAACCAGCAGAGTCTCCCTTTTCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGT
TCAGAAGGGATCAGGTTGGGGGGCAGCCCCCAGTCCCTTTCTGTCCAGCTCAGTTTCCAAAAGACACTGACAT
GTAATTCTTCTATTGTAAGGTTTCCATTAGTTTGTTCGATGATTAAATCTAAGTCATTGAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 121

MGHRPVLVLSQNTKRESGRKVQSGNINAAKTIADIIRTCLGPKSMMKMLLDPMGGIVMTNDGNAILREIQVQHPA
AKSMIEISRTQDEEVGDGTTSVIILAGEMLSVAEHFLEQQMHPTVVISAYRKALDDMISTLKKISIPVDISDSM
MLNIINSSITTKAISRWSSLACNIALDAVKMVQFEENGRKEIDIKKYARVEKIPGGIIEDSCVLRGVMINKDVTH
PRMRYIKNPRIVLLDSSLEYKKGGSQTDIEITREEDFTRILQMEEYIQQLCEDIIQLKPDVVITEKGISDLAQ
HYLMRANITAIRRVKTDNNRIARACGARIVSRPEELREDDVGTGAGLLEIKKIGDEYFTFITDCKDPKACTILL
RGASKEILSEVERNLDAMQVCRNVLLDPQLVPGGGASEMAVAHALTEKSKAMTGVEQWPYRAVAQALEVIPRTL
IQNCGASTIRLLTSLRAKHTQENCETWGVNGETGTLVDMKELGIWEPLAVKLQTYKTAVETAVLLLRIDDIVSGH
KKKGDDQSRQGGAPDAGQE

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FIGURE 122

GGCACGAGGACCGACCGCATTGCGGCTTGGTTTTCTACCCAGTGCATGTGGCAGGAGCGGTGAGATCACTGCCT
CACGGCGATCCTGGACTGACGGTCACGACTGCCTACCTCTAACCTGTTCTGAGCTGCCCCITGCCACACACC
CCAAACCTGTGTGCAGGATCCGCCTCCATGGAGCTACAGCCTCCTGAAGCCTCGATCGCCGTCGTGTGATTCCG
CGCCAGTTGCCTGGCTCACATTGCGAGGCTGGTGTCCAGGGTCTCAGCGCGGGGACGACTCAGAGTTGGGGTCT
CACTGTGTTGCCAGACTGGTCTCGAACTCTTGGCCTCAGGTGATCCTCTTCCCTCAGCTTCCCAGAATGCCGAG
ATGATAGAGACGGGGTCTGACTGTGTTACCCAGGCTGGTCTTCAACTCTTGGCCTCAAGTGATCCTCCTGCCTTA
GCTTCCAAGAATGCTGAGGTTACAGGCACCATGAGCCAGGACACCGAGGTGGATATGAAGGAGGTGGAGCTGAAT
GAGTTAGAGCCCCGAGAAGCAGCCGATGAACGCGGCGTCTGGGGCGGCCATGTCCCTGGCGGGAGCCGAGAAGAAT
GGTCTGGTGAAGATCAAGGTGGCGGAAGACGAGGCGGAGGCGGCGAGCCGCGGCTAAGTTACGGGGCCTGTCCAA
GAGGAGCTGCTGAAGGTGGCAGGACGCCCCGGCTGGGTACGACCCGCTGGGCACTGCTGCTGCTCTTCTGGCTC
GGCTGGCTCGGCATGCTTGTGCTGGTGGCTGGTCAATACTGTGCGAGCGCCGCTTGTGCGAGCTACCGGCGCAG
AAGTGGTGGCACACGGGCGCCCTCTACCGCATCGGCGACCTTCAGGCCTTCCAGGGCCACGGCGCGGGCAACCTG
GCGGGTCTGAAGGGGCGTCTCGATTACCTGAGCTCTCTGAAGGTGAAGGGCTTGTGCTGGGTCCAATTACAAAG
AACCAGAAGGATGATGTGCTCAGACTGACTTGTCTGAGATCGACCCCAATTTTGGCTCCAAGGAAGATTTTGAC
AGTCTCTTGCAATCGGCTAAAAAAGAGCATCCGTGTCTATTCTGGACCTTACTCCCAACTACCGGGGTGAGAAC
TCGTGGTTCTCCACTCAGGTTGACACTGTGCCCCACCAAGGTGAAGGATGCTCTGGAGTTTTGGCTGCAAGCTGGC
GTGGATGGGTTCCAGGTTGCGGACATAGAGAATCTGAAGGATGCATCCTCATTCTTGGCTGAGTGGCAAAATATC
ACCAAGGGCTTCAGTGAAGACAGGCTCTTGATTGCGGGGACTAACTCCTCCGACCTTCAGCAGATCCTGAGCCTA
CTCGAATCCAACAAAGACTTGCTGTTGACTAGCTCATACTGTCTGATTCTGGTTCTACTGGGGAGCATAAAAA
TCCCTAGTCACACAGTATTTGAATGCCACTGGCAATCGCTGGTGCAGCTGGAGTTTGTCTCAGGCAAGGCTCCTG
ACTTCCTTCTTGCCGGCTCAACTTCTCCGACTCTACCAGCTGATGCTCTTACCCTGCCAGGGACCCCTGTTTTT
AGCTACGGGGATGAGATTGGCCTGGATGCAGCTGCCCTTCTGGACAGCCTATGGAGGCTCCAGTCATGCTGTGG
GATGAGTCCAGCTTCCCTGACATCCAGGGGCTGTAAGTGCCAACATGACTGTGAAGGGCCAGAGTGAAGACCCT
GGCTCCCTCCTTTCTTGTTCGGGCGGCTGAGTGACCAGCGGAGTAAGGAGCGCTCCCTACTGCATGGGGACTTC
CACGCGTTCTCCGCTGGGCTGGACTCTTCTCCTATATCCGCCACTGGGACCAGAATGAGCGTTTTCTGGTAGTG
CTTAACTTTGGGGATGTGGGCTCTCGGCTGGACTGCAGGCCCTCCGACCTGCCTGCCAGCGCCAGCCTGCCAGCC
AAGGCTGACCTCCTGCTCAGCAGCCAGCCAGGCGGTGAGGAGGGCTCCCCTCTTGAGCTGGAACGCCTGAACTG
GAGCCTCACGAAGGGCTGCTGCTCCGCTTCCCTACGCGGCCTGACTTTCTCAGCCTGACATGGACCCACTACCCTTC
TCCTTTCTTCCAGGCCCTTGGCTTCTGATTTTTCTCTTTTTTAAAAACAAACAACTGTTGCAAAAAA
AAAAAAAAAAAAA

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FIGURE 123

MSQDTEVDMKEVELNELEPEKQPMNAASGAAMSLAGAEKNGLVKIKVAEDEAEAAAAAKFTGLSKEELLKVAGSP
GWRTRWALLLLFWLWLGMLAGAVVIIVRAPRCRELPAQKWWHTGALYRIGDLQAFQGHGAGNLAGLKGRLDYL
SSLKVKGLVVGPIHKNQKDDVAQTDLLQIDPNFGSKEDFDSLLQSAKKKSIRVILDLTTPNYRGENSEWFTQVDTV
ATKVKDALEFWLQAGVDGFQVRDIENLKDASSFLAEWQNI TKGFSedrLLIAGTNSSDLQQILSLLESNKDLLLT
SSYLSDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSFLPAQLLRLYQLMLFTLPGTPVFSYGDEIGLDA
AALPGQPMAPVMLWDESSFPDIPGAVSANMTVKGQSEDPGSLLSLFRRLSDQRSKERSLLHGDFHAFSAGPGLF
SYIRHWDQNERFLVVLNFGDVGLSAGLQASDLPASASLPKADLLLSTQPGREEGSPLELERLKLEPHEGLLLRF
PYAA

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FIGURE 124

GGCACGAGGCCCGGTTCCGGCGCGGTTGAGGCCTTCGGTGGTGAACGAGTCTCCAGCACCATGTCTGGTTTGTC
TGGCCCACCAGCCCGCGCGGCCCTTTCCGTTAGCGTTGCTGCTTTTGTTCCTGCTCGGCCCCAGATTGGTCCT
TGCCATCTCCTTCCATCTGCCATTAACTCTCGCAAGTGCCTCCGTGAGGAGATTACAAGGACCTGCTAGTGAC
TGGCGCGTACGAGATCTCCGACCAGTCTGGGGGCGCTGGCGGCCTGCGCAGCCACCTCAAGATCACAGATTCTGC
TGGCCATATTCTCTACTCCAAAGAGGATGCAACCAAGGGGAAATTTGCCTTTACCACTGAAGATTATGACATGTT
TGAAGTGTGTTTTGAGAGCAAGGGAACAGGGCGGATACCTGACCAACTCGTGATCCTAGACATGAAGCATGGAGT
GGAGGCGAAAAATTACGAAGAGATTGCAAAAGTTGAGAAGCTCAAACCATTAGAGGTAGAGCTGCGACGCCTAGA
AGACCTTTCAGAATCTATTGTTAATGATTTTGCCTACATGAAGAAGAGAGAAGAGGAGATGCGTGATACCAACGA
GTCAACAAACACTCGGGTCTTATACTTCAGCATCTTTCAATGTTCTGTCTCATTGGACTAGCTACCTGGCAGGT
CTTCTACCTGCGACGCTTCTTCAAGGCCAAGAAATTGATTGAGTAAATGAATGAGGCATATTCTCCTCCACCTTG
TACCTCAGCCAGCAGAACATCGCTGGGACGTGCCTGGCCTAAGGCATCCTACCAACAGCACCATCAAGGCACGTT
GGAGCTTTCTTGCCAGAAGTATCTCTTTTGGTGTGGGAGGACATGGGGTACCACCTACACCCAACAAGTCAATG
AGGGACTTCTTTTAAATTTGGTAGGATTTTGACTGGTTTTGCAACAATAGGTCTATTATTAGAGTCACCTATGAC
AAAAAATAGGGGTTACCTAGATAATGCCAAAGTCAGCATTTGTCCTGGGTTCCCTTGTGTGATCTGTTTGGACTA
TGTTTTCTTTCTTCTCCCACTTGCTCAGCAGCTTGGGCTTCCATTCTAGTTCTTTTACCAAGATTTTGTGTGA
CCATGTTGACTTCATTTGGATTGCCCTCTTTCAATTTCTTGTGAAAACACCCTTAACCTTCTCTTTACCCTTAG
CTGAAATGTTTACATAGCTTCTGGTGATATCTTTTCATGATTTTATATCTCTTAAATGGTGATGGATGTGACAC
CTCATAAAAGTGAGCTTTGAACTGTAGATAACTCTTAAAGAAAATGTCATTTTAGACAATTAAATATTTGTGCT
CAACTGCTTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 125

MSGLSGPPARRGPFPLALLLFLGPRVLAI SFHLPINSRKCLREEIHKDLLVTGAYEISDQSGGAGGLRSHLK
ITDSAGHILYSKEDATKGKFAFTTEDYDMFEVCFESKGTGRIPDQLVILDMKHGVEAKNYEEIAKVEKLKPLEVE
LRRLEDLSESIVNDFAYMKKREEEMRDTNESTNTRVLYFSIFSMFCLIGLATWQVFYLRFFKAKKLIE

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FIGURE 126A

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC
GCCCACCACCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTGCCCCTCACCTCTCCCCGAAAAACCCCTT
ATTTAGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCTCCCTTCCAAAAACAAAAACAGAAAAACCCCTTTT
CCAGGCCGGGAAAGCAGGAGGAGAGGGGCCCGGGCTGGCCATGGAGCTGCTGTGCCACGAGGTGGACCCGG
TCCGACGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCTCCTGCAGAACCTGCTCACCATCGAGGAGC
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCCTGCAGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCAGAAGAGAGTCTTCCCTCTGGCCATGAATTACCTGGACC
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTTGGCCTCCA
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC
TGCTGGAGTGGGAAGTGGTGGTGTGGGGAAGTTGAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCATTG
AGCACATCTTGGCAAGCTGCCCCAGCAGCGGGAGAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT
ACCGTCAGGACCAAGCTGACGGATCCAAGTCGGAGGATGAAGTGGACCAAGCCAGCACCCTACAGACGTGCGGG
ATATCGACCTGTGAGGATGCCAGTTGGGCCGAAAGAGAGAGACGCTCCATAATCTGGTCTCTTCTTTCTTTCTGG
TTGTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAATTCTGCCCCACCTAGATCATATTTAAAGAT
CTTTTAGAAGTAGAGAAAAAGGTCTTACGAAAACGGAATAATAAAAGCATTGTTGGTGCCTATTTGAAGTACAGC
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAGTAATAGTAAATGCTTACAGGAAA
ACCTGCAGAGTAGTTAGAGAAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTCTATGTT
ATGAGCTAGCACATACACCCCTTGTTAGTATAATTTCAAGGAAGTGTGTACGCCATTTATGGCATGATTAGATTG
CAAAGCAATGAAGTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAAAATCTCTCAAC
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT
CTCTACATTAATGCTCTCTTGTGTCTACAGTAGCTGTACCTAAAAAAGATGTTTTATTTTGGCAGTTGGACA
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAACTCACATGAAACGGAGGCAGATGGAG
ACCAAGGGTGGGATCCAGAATGGAGTCTTTCTGTTATTGTATTTAAAGGGTAATGTGGCCTTGGCATTCTTCTC
TTAGAAAAAACTAATTTTTGGTGTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCCATT
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC
CTCTTCTCTTTTGGCCCCCTCCCTTCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTCTTTTGG
TACACAGTTCTGGTGTCTTACCAGGACTCAAGAGACACCCCTTCTGCTGACATTCCTCATCACAACATTCTCTCA
GACAAGCCTGTAACTAAATCTGTTACCATCTGATGGCACAGAAGGATCTTAATCCCATCTCTATACTTCTC
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTTTCC
CTTTTCCGTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTGTATTTCAGCGTACTTGAATTTTTC
TTCCTCTCCACTTCTTAGAGGCATTGAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTGCACAA
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAATATTTGCCTTTTAAAGTAAAAAGAAAAATCAGAACAGGG
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAACAACTCTA
AGGGTCTCTCATTTTTTTTAAATTTGTTTTGTTTTCAGTTTGGTTTTTTTTTTTTTTTGGCTGCTAAGAAGCTAAAG
TCATCCATCCTTATTCAGTTGACAGTACCTAGCTGTAATGTTTACAGAGTGTGCTGCTATTTTATAAACATTT
TTATAATATATTATTTTACTGCTTAAATTCAGTCTGAAGTAGATGGTTGAGATAGAGTTCTTCGTACTGGA
AAAGCCCTCCGCTAGTTTGTCTTCTGTTAGCATATTCATGGTTGTTTTTTTTTTTCTTTTTTGGTTTTTTGG
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT
AACTACAAAAGGCAATGATTACGCTTTTGTCTTTCATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCA
TTCGATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCAGTTAGACCTGGTATCCTCATCATGATGGAAAAATA
CATTGAACCAAGGGATCTCCCTCCCTTCAAGGCAGACGTTAGTACAAACATTTATGCGGTAGGCTCAGATGT
CGTAATTTGCACTTAGGTACCAGGTGTGAGGAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA
TCTTGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCTCCGCTTT

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FIGURE 126B

CCCCCCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCTAGGTCTGAATCTGCGAGTAGAT
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAATTCAGATG
AGTCAGTCTCTTGGGAAGTGTGTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAAATCTAGGGGA
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG
GGAACCTTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAAATTCATTTTATGGTACTGACC
CTTGAGCTTAAACAGAACGAGCAAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT
ACAGTCTGTAACCTTTCCACTCTTCTGTAGTCCCGAGGCCCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT
GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAGTGGGGGGTGTAGGCTTTTCTGCCTGCTCCT
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTGTGTCCA
GAGGAGCTCTCCCCCTTGGATTGAACTTGCTCTTTTGTGTGTGTGTCTTTCTCTTTTCTTACCTCCC
ACTAAGGGGTTCCAAATTATCCTGGTCTTTTCTACCTTGTGTGTGTCTATCTCGTCTTTACTTCCATCTGTT
TGTTTTTTCTCCATCAGTGGGGCCGAGTTGTCCCCAGCCTGCCAAATTTGATCCTTCCCTCTTTTGGCC
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAA
CAGCCAAGAAAGCCTGCAGGAGAAAGCCAAAGGCGATTTCCCTCCGAGAACACCCCATGCGTGCTGAGAGGCGAGC
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCTTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCAT
GCCTTACTACTGGGTCTATCCTTGGTCTATGTGCTGTGACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA
GGGGCACACATGGCTTAAAGTGACAAAGCCAGAGGAGAAGACAACCTGACAGCATCAGCGTGCATCCATTGCTA
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCEAGACTGTGC
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCTATGTAATAATTGA
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG
TTGGCTTCTAAGCCAAAAGGATTCTCTTTTGTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG
AAATTAATGCTGAGATGATAAAGTCCCCCTTAAGCCAAACAAACCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT
CAAGAGGATATTTATTACTTCTCATACCACATGGCTTTTGTGATTCTGGATTCTAAACAACCCAGAATGGTCA
TTTCAGGCACAACGATACTACATTTCGTGTGTGCTGCTTTTAACTTGGCTGGGCTATCAGACCCTATTCTCGGC
TCAGGTTTTGAGAAGCCATCAGCAAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCTGCAGCC
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCTT
TGAAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA
AATCATCGGGCCATTGGATTTTTTCCATTATGTTTATCACCCTTATATCATGTACCTCAGATCTCTCTCTCTC
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTTTTTTTTTTTTGGCTTAAAA
CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCAGAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTGGT
CAGGATGTTAGAAAGTGTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG
TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGGTCTTATCTGTTTCAAGTGTAAAGTAT
TTAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTGAAAATGGTTTTGAATGCAATTAGGTTAT
GCTATTTGGACAATAAACTCACCTTGACCT

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FIGURE 127

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEE
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKWKWN
LAAVTPHDFIEHILRKLPQOREKLSLIRKHAQTFIALCATDFKFAMYPSPMIATGSVGAAICGLQQDEEVSSLTC
DALTELLAKITNTDVCCLKACQEQIEAVLLNSLQQYRQDQRDGSKEDELDQASTPTDVRDIDL

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FIGURE 128A

TGTGGCTGTGACCTGGCACAAGGGGGCTTCTTCATAAAGAACGGAGAGTATCTCTGCACCCTGGACTACCAGCGG
ATGTACGGGACACGCTGCCATGGCTGTGGGGAGTTCTGTGGAGGGCGAAGTGGTGACTGCTCTGGGCAAGACCTAC
CATCCCAATTGCTTTGCTTGTACTATCTGCAAGCGCCCGTTTCCACCCGGAGACCGAGTCACATTCAATGGGAGA
GACTGCCTTTGTCAACTCTGTGCACAGCCGATGTCTCCAGTCCGAAAGAAACCACCTTCTCCAGCAATTGTGCC
GGCTGCGGAAGAGATATCAAGAACGGGCAGGCGCTGTGGCGCTGGATAAGCAGTGGCACTTGGGGTGTCTTAAA
TGCAAGTCTTGCAGGAAGGTCTTACCAGGGGAGTACATCAGCAAGGATGGTGCTCCGTACTGTGAAAAGGACTAC
CAGGGACTCTTTGGGGTGAAATGTGAGGCGTGTACCAGTTTATCACAGGGAAAGTCTCTGGAGGCAGGTGACAAA
CATTACCACCCAGCTGTGCACGATGCAGCAGATGCAACCAGATGTTTACAGAAGGAGAGGAAATGTATCTCAA
GGCTCCACCGTTTGGCATCCCGACTGTAAGCAATCTACGAAGACCGAGGAAAAGCTGCGGCCTACCAGGACATCC
TCGGAAAGTATTTATTCTAGGCCAGGCTCCAGTATTCTTGGCTCACCAGGTCATACTATCTATGCAAAAGTAGAC
AATGAGATCCTGGATTACAAGGATTTAGCAGCCATTCCGAAGGTCAAGGCAATTTATGACATTGAACGTCCAGAT
CTTATTACCTATGAGCCTTTCTACACTTCGGGCTATGATGACAAACAGGAGACAGAGCCTTGGAGAGTCTCCG
AGGACTTTGTCTCTACTCCATCAGCAGAAGGGTACCAGGATGTTTGGGATCGGATGATCCATCGGTCCACGAGC
CAGGGCTCCATCAACTCCCCTGTGTACAGCCGCCACAGTACACTCCAACCACGTCCCGCTCTCCCCAGCATTTT
CACAGACCTGGCAATGAGCCGTCCAGCGGCCGGAATCCCCTCTCCCTTACCAGGCCAGACAGCCGCCCTCTAACT
CCAATTACGCTCAGGCCCCCTAAACATTTCCATGTTCCAGATCAAGGAATCAACATTTACCAGAAAGCCACCCATC
TACAAACAGCATGCTGCCTTGGCAGCCCAGAGCAAGTCTCAGAAAGATATCATCAAGTTTTTCAAGTTCCAGCA
GCCCAGGCACCCAGACCCAGCGAGACACCAGAGATTGAGACGGACCACTGGCCTGGTCCCCCTCATTGTCTGTC
ATAGGACCTGACATGAAACGCAGATCTAGTGGCAGAGAGGAAGATGATGAGGAACCTTCTGAGACGTCGGCAGCTT
CAAGAAGAGCAATTAATGAAGCTTAACCTCAGGCCCTGGGACAGTTGATCTTGAAAGAAGAGATGGAGAAAGAGAGC
CGGGAAAGGTCAATCTCTGTAGCCAGTCTGCTACGATTCTCCATCAACTCAGCTTCACATATTTCCATCATCTAAA
ACTGCATCTCTCCCTGGCTATGGAAGAAATGGGCTTACCAGGCCCTGTTTCTACCAGACTTCGCTCAGTATAACAGC
TATGGGGATGTCTCAGCGGGGAGTGCGAGATTACCAGACACTCCAGATGGCCACATGCCTGCAATGAGAATGGAC
CGAGGAGTGTCTATGCCCAACATGTTGGAACCAAGATATTTCCATATGAAATGCTCATGGTGACCAACAGAGGG
CGAAACAAATCCTCAGAGAGGTGGACAGAACCAGGCTGGAGCGCCACTTAGCCCCGAAAGTGTTCGGGAAATC
TTTGGAATGTCCATACAGGAGTTTGACAGGTTACCTCTTTGGAGACGCAACGACATGAAGAAAAAGCAAACTC
TTCTAAAGTCCCACTCGTGAATGGCAATTAGAGAAAGGACTGACAGTGGCGGTGCCCCATAGGATGTCATATTGAG
GCCCAAACCTTGATTGGAGAATTTGCAAACTACCGTGCCTCAGCAACACCAAAAGAGAAAGTCTGGTTAAACAC
CATGAGTCAAATGTGCGGCCAGCCAACAGTAACACTTGCCAAGAGCATGGCGTAGAAATTTCTATGTTCCGAAA
CACAGAGTAGTGCCACATGTGACCTTTTACATTACCTTATGTATACAACAGGAGCTGCGTTGTTTTCTTCTTT
TTCTTTTCTTTATCTGTTGTCCAACAACAGTGTGACTGTCCGATAAGAGCTGGCAAGTGGCCTTAGGATGCC
GCATGGGAAAAATCGGTTATCATAATTTCAAAGTATAAATATATTTATTATGTAGCGCTGCGGCTAAGAAGGAAG
AGTGAGGGGTCTGTCCATGGGGTGGCAGTGATTTACACCCGCCCTTCTTGAATGGCTTCGTGTTACTCAGCCGT
GCCCTGGCAGGAATGGAACCTCCATCAGGGAACAGGGCAGCTCTGTTTGAATGGGGTGAAAAACAGCAAAATTAAT
TCTTAGCAAGCTCCTTGTTCTCTACTGTTACCGGGACCTGGCTGGCAAATGACTTAGCTATTAGTATATTTAAA
AACTGTTCAAAGCAAAAGAGAAGGAACAGGAATGAAAGGAAACCTTCCCTTAACTCTTTCTGCTTCCCATAGCA
GGTCTGGTTCTGCTCCCCGCCTAGGACAGGAGCTGTCTGGAGCTCCACCTTTGCAAAGAAAGGAAAAACAAAA
TTGCCCCCAGATTGGCCCAGTGGCATGCCATTAGGTGATTTTGGCGTAGGGGCCATATCATTATGGCCAAAAAAA
ACCAAAAAGCAAAAAACAAAAACAAGTCCCATGTCCTACTGACTCTAGTTCTTCCAGTCGTTATCCTCTGCTGTC
TCTCTGGCATCCTATGAATCAGATCAAGCCCATGCTGTTGTTGGTTTTTAAGGTTTTCTTCAATAATAGGCTAAG
GAAAGACATGTTTTTCTTTTTAAATCTCTGCAACTCAAAGTAGACTCCTTCCAACGTATTTAATTTGGCCTTT
TCAGCTTTCTTCTTGGCCAGCTCTGTGCAATTCATGGGTGTGTGTGCACATGTTGGTTTCACTCACCCAGAGTAA
TTTTGTGAGCATGCATGTGCTTTTTAATTTCTGCTTGAATGTTTGTCTGCTGTGTTGCAGCTTCTAAAGACATT
GTCACCGAGTGTGTGACTCAAAGATCAAGAGTGAAGGCTAAACTGCGACCCCAACATCACTTCTTATGAAAA
GGTGTGCGCTGTGTAGCTCATGGAAGGATCAGACTGGGAACACAGAGGAAGGATGAGGTGGGATGTGGAGG
TCAGAGCATCTCACGAGAGTCCCTCAGGCTCTGCAACACTAGATTGGAATATGAGCCTAGGGTTTCCCCAACAG
TGCGTGCATATGAAACCACATCATGATTCCCAGCTGAGTTAGATGAGGGAGAGTTTGTGTAATCCACACCCAG
GAGGGTAAGCCACTTTATTATCATGCTTTGGGGCTGTGCTTAAGAATTTAAGCTCTGTTTTAAAGCCGAAGAAGA

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FIGURE 128B

AAACATTTGAATTTACCTTCATATGCCACTAAGAACAAAAGCTCTGAAGTTCTTCTGCTGGCACCAAAATATTAG
GATTACAAGCTGTCTCTCTGACACCAGTGGTAAAAAAGCAAGTAGAATAGTTTCTGAGTCTGTGTGTCAGCCTCT
GACACGTGGCTCACTGCTGTCATTTGGGGGGTGAATGAACAGTCACTGTTCTATAGCATCCTCCTGTGCTCTTA
CCTAAGGAATCTAAATTGCTTAGCCTTCCATTGCTATGCACTGAATGAGGACTACTCTCGTGTGTGTGTGTGTG
TGT
CCATGAGCAGATGAGACCAGCTCTTGCTTGGTTGGAAGCCACACTGCAGTTTGAGTTTAGCCTTTGGTGTCTCA
GTGGCCTCTTGCTTATTCATGCTTTTTCTATCCCATCCTCTCTGTGCCCTCCTGCAATGGCAGCCTTGGCAC
AATGCCTGGGTGTCCTCATCCTTGCTTTACTCTGAAAGTGTGGGGATGGAGAGGATGGTGCATTTCCAGTGCTT
CCTTACCTGTCAATAACAATGGTGGCCACCTGGGTCCCAGCACTTGGCTGGTGGAGAGATTTTTTTCATTATGGA
GCTAATAAAGGGTCCCTACGTTTACATTGATTAATGAATTATCAGGATAGTTTGTCTAAAATCCTCTTCTTGGTCTACA
TAAAGAAGACATGGGTCTGTCTAGAAATGGGGACATTAGACTGAAAACCTGGGACAAACCCCTTCTTATTTTATA
GAGACTAGGAGTTAAGGGGCTGCCTAAGATTGCAGTGATAAAGAACTGAACCTAAATCAGCTCCCACTAATGA
AACCCTGCTTTCTTGTATCTTTTAAACTCAGTTCTGCATCCAACCTGAGAAGAAAAAAGCTTCTTTCCATATC
AAGTACCATAAGAGTTCAATTTAAACTGCACCTTGCAAAATGCATTGCCAGAAAGCAGGATAGCCTCCTATCTG
CAAGCAGAGTAGTGCTCTGCTCTGGGGAGGGGTCAATGGAAACCAATAATGCAGAGTGGGCCCCCTACTCCATTTT
CCAGCAAAAGGCTCCAGCTGGAGGGATGGGTTGTGGGGCAACCTGGTTCTGCTAACTGCCAGATGCAATGTGTG
GGCTAGAATGCCTGCGCATTTAGTTAAACTGGGCTCAGCATGCTTGTCTCAAAATGTCCATCCTGGTACAGCA
CACAAGATGGCTATTGGTCTGCTTTTACCCTACCCTGTACTATACATGAAAATTCAGTTATTAACACACTCAAA
CTGGTGGAGCTTGTTCACCCTAGGAAGGGGATGTATATATGGCAGGCTTCCCTGGTGCCGATGTAAAGGGCTAC
ATTTGGGAACATTTGACTTCCTTGGGACTCTTAAGTGCATATGATGGCATGAAGTAAAAGGGGCTCAATGATG
ATAGGAAAACAGTCTCTTTTAAATTTCTTCAAGAAAATCCAGGCTATCACATAGTCTTCTGTGTGACTTATTA
GGAGATAGGAAGAGCAATGGGAACTTGCACAGCTAGCTATGCATCTACATTTTGGTTTGGGGTTAGTTATGAAA
TGTCTTAATATGACGTGTTCAATAAATTCACATAAATCTTCTGTTCTCCAAAACCTCAAAGAGATAGAGTTAAT
GAGTTGTTGTTTTTTTTTAAATGGGGGTAGTTTTCTATCTGTCTAGGCTCTAGCATCTACTCCGCTACCCAATT
CTGTCTATCTCCAAGCTGAGTTTCTCTCTGAGGAGAGGCTGGAGCAGTTCTTTTTTCACTTCTCATCTCTCCA
TCCCAATCCAGTATATCAATCAACTCTAACTCGGAGACGTCTAGCTGGCAATGTTTCTAAAACCTTTCCTGGATT
TCTTTAGACATTGAAGCAACATTTTTTTCTAAGAATTGCTTCTCAGATGATGATATCAAATGTATATGCTTTTG
CAAGTTTGAAAAGTTCAAATTAACCACTTTTGACTAGGTAAAGTCTTTCTAAAACCATTTAAAGCTAACTGGGTC
TTAGCATCCTCCTGTGTATGGAAGAGACAGGTGACCGCTCCAGGTTGGGTGCTCACAGAACCCCTTTTCTGACTC
TCATGGAAGATGGTGAAGGAAAATAGACTGTCTCATCAACCTCCTGTGCTCTGAAGCAATCTCAGTTTTTA
TTAACCACTCTTCTGTGTTTCTGGTAGCTATTTAACCTGTATTTAATCTGACTTCTATGCCAGCCTCAATTT
TATTTGATTTTTTAAATATTCTCTTCTAACCAATGAAGTGTGTGTGTCAGTATGCCCCAAAGCTTGCTCTTTTGTG
CTCCCTTTTGAATAACTTTCTATCCAGAAAAAGAGATTATTTGGGACTTGAGATTGTCAGTGATACCAACTTATA
GCAATGATGACTTTAAGGGAACCTACCAACTATGTTGTGATAGAAGAAAGAGAAACCTTCACTTTGGCATTTTT
TTTAATCACTGTTTATTTTTCTGTTTGGCGCCAGGAAGCAGTGGGAGGTGGTGGCAGATATGCTTTGCATATGG
ATTGTTATGTTTTTATTTGGGCAAGTTTAATCATGGAAGAACTCAAAAAGAGGGGGGAAATGGTCAGTTTAAGCC
AAAAGAACTTTCTAACAATGTATAGGTACACAGCAAAATTAACAATCCAACAATTTCTGAAGCTTAGTGTA
ATTGAGTGGTGGTTGTTATTCAATAAAATTATCCCAAAAGTGTCTTCTCCTAAGAGTGCAGTTCCCATGAGTCAC
TTCCTGAACCCATTGACCAAGGTGGACAGAGACAATCCTGTAGACCTTGACATTGAGAAAGATGTGAGCTGCTT
ACTGATCATATATGCATACGTTTCTTTACAGCAGAGGAAACCACTTGTCACAAAACCTGATGTTCTTTTGGGGTTT
TATGTACAGACTTGTCCAATCATGTGTGTGGTTCTGCGAGTTGCTGATGACTCCGATTGAAGCTCTCTGAGTT
CTTTGATTTTTAAGTTGGGTTTATGGAATTTTTTCAATGTTGGAAGGCGTGTGGTTCTTCTGCCCCCTCCCC
TTTTGGAAATATGAAAGCAAATGTTTAGAAGAATTCCTTTTGAAAAGCTGTGTCGTGTTCCCTGTGAAACTGAGC
AGGTGTGTGTTGGCGCGCTAAGTGCCACATGCTTGTGTGTAGAGGAGGAGGTGGCCCTGCCGCTCCGCGCTGCT
GTGCCTGTGATCCCTACCTGCTCCCCGCTCCTGTGTCAGCAGCACTCACTGCACTCCTTTGTCATATACTCTGC
ATCACTGTCATACTCACAACCTTCGTGAATAAAGTTGTGTGCTTTATTCGTC

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FIGURE 129

MYGTRCHGCGEFVEGEVVTALGKTYHPNCFACITICKRPFPPGDRVTFNGRDCLCQLCAQPMSSSPKETTFSSNCA
GCGRDIKNGOALLALDKQWHLGCFKCKSCGKVLTEYISKDGAPYCEKDYQGLFGVKCEACHQFITGKVLEAGDK
HYHPSCARCSRCNQMFEETEEMYLQGSTVWHPDCKQSTKTEEKLRPTRTSSESIYSRPGSSIPGSPGHTIYAKVD
NEILDYKDLAAIPKVKAIYDIERPDLITYEPFYTSGYDDKQERQSLGESPRTLSPTPSAEGYQDVRDRMIHRSTS
QGSINSPVYSRHSYTPTTSRSPQHFRPGNEPSSGRNSPLPYRPDSLPLTPTYAQAPKHFHVPDQGGINIYRKPP
YKQHRALAAQSKSSEDI IKFSKFPAAQAPDPSETPKIETDHWPGPPSFAVVGPDMMKRSSGREEDDEELLRRRQL
QEEQLMKLN SGLGQLILKEEMEKESRERSLLASRYDSPINSASHIPSSKTASLPGYGRNGLHRPVSTDF AQYNS
YGDVSGGVRDYQTL PDGHMPAMRMDRGVSM PNMLEPKIFPYEMLMVTNRGRNKILREVDRTLERHLAPEVFREI
FGMSIQEFDRLPLWRRNDM KKKAKLF

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FIGURE 130A

CACGAGGCAGCACTCTCTTCGTCGCTTCGGCCAGTGTGTGGGCTGGGCCCTGACAAGCCACCTGAGGAGAGGCT
CGGAGCCGGGCGGACCCCGGCGATTGCCGCCCGCTTCTCTCTAGTCTCACGAGGGGTTTCCCGCTCGCACCC
CCACCTCTGGACTTGCCCTTCTCTCTCTCCGCGTGTGGAGGAGCCAGCGCTTAGGCCGGAGCGAGCCTGGG
GGCCGCCCGCGTGAAGACATCGCGGGGACCGATTACCATGAGGGCGCGCGCGCGAAGACAAGAAAAAG
ATAAGTTCTGAACGTCGAAAAGAAAAGTCTCGAGATGCAGCCAGATCTCGGCGAAGTAAAGAATCTGAAGTTTTT
TATGAGCTTGCTCATCAGTTGCCACTTCCACATAATGTGAGTTGCGCATCTTGATAAGGCCTCTGTGATGAGGCTT
ACCATCAGCTATTTGCGTGTGAGGAACTTCTGGATGCTGGTGATTGGATATTGAAGATGACATGAAAGCACAG
ATGAATTGCTTTTATTTGAAAGCCTTGGATGGTTTGTATGGTTCTCACAGATGATGGTGACATGATTTACATT
TCTGATAATGTGAACAAATACATGGGATTAACCTAGTTTGAACCTAAGTGGACACAGTGTGTTTACTCAT
CCATGTGACCATGAGGAAATGAGAGAAATGCTTACACACAGAAATGGCCTTGTGAAAAGGGTAAAGAACAAAAC
ACACAGCGAAGCTTTTTCTCAGAATGAAGTGTACCCTAATAGCCGAGGAAGAACTATGAACATAAAGTCTGCA
ACATGGAAGGTATTGCACTGCACAGGCCACATTACGTATATGATACCAACAGTAACCAACCTCAGTGTGGGTAT
AAGAAACCACCTATGACCTGCTTGGTGCTGATTTGTGAACCCATTCTCACCCTCAAAATATTGAAATTCCTTTA
GATGCAAGACTTTCTCAGTCGACACAGCCTGGATATGAAATTTCTTATTGTGATGAAAGAATTACCGAATTG
ATGGGATGATGAGCCAGAAGAACTTTTAGGCCGCTCAATTTATGAATATTATCATGCTTTGGACTCTGATCATCTG
ACCAAAACTCATCATGATATGTTTACTAAAGGACAAAGTACCACAGGACAGTACAGGATGCTTGCCAAAAGAGGT
GGATATGTCTGGGTTGAACTCAAGCAACTGTCTATATAACACCAAGAATTCTCAACCACAGTGCATTGTATGT
GTGAATTACGTTGTGAGTGGTATTATTACGACAGCTGATTTGATTTTCTCCCTTCAACAAACAGAATGTGCTCTAAA
CCGGTTGAATCTTCAGATATGAAATGACTCAGCTATTACCAAAAGTTGAATCAGAAGATACAAGTAGCCTCTTT
GACAAACTTAAAGAAGAACCTGATGCTTTAACTTTGCTGGCCCCAGCCGCTGGAGACACAATCATATCTTTAGAT
TTTGGCAGCAACGACACAGAACTGATGACCAGCACTTGAGGAAGTACCATTATATAATGATGTAATGCTCCCC
TCACCCAACGAAAAATTACAGAATATAAAATTTGGCAATGTCTCCATTACCCACCGCTGAAACGCCAAAGCCACTT
CGAAGTAGTGCTGACCCTGCACTCAATCAAGAAGTTGCATTAAAATTAGAACCAATCCAGAGTCACTGGAACCTT
TCTTTTACCATGCCCCAGATTACAGATCAGACACCTAGTCCTTCCGATGGAAGCACTAGACAAAGTTCACTGAG
CCTAATAGTCCCAGTGAATATTGTTTTATGTGGATAGTGATATGGTCAATGAATTCAGTTGGAATTGGTAGAA
AACTTTTTGCTGAAGACACAGAAGCAAAGAACCCTTTTCTACTCAGGACACAGATTAGACTTGGAGATGTTA
GCTCCCTATATCCCAATGGATGATGACTTCCAGTTACGTTCTTTCGATCAGTTGTCACCATTAGAAAGCAGTTCC
GCAAGCCCTGAAAGCGCAAGTCTCAAAGCACAGTTACAGTATTCCAGCAGACTCAAATACAAGAACCTACTGCT
AATGCCACCCTACCCTGCCACCCTGATGAATTAAGAACAGTGACAAAAGACCGTATGGAAGACATTAAATA
TTGATTGCATCTCCATCTCTACCCACATACATAAAGAACTACTAGTGCCACATCATCACCATATAGAGATACT
CAAAGTCGGACAGCCTCACCAAACAGAGCAGGAAAAGGAGTCATAGAACAGACAGAAAAATCTCATCCAAGAGC
CCTAACGTGTTATCTGTGCTTTGAGTCAAAGAACTACAGTTCTGAGGAAGAACTAAATCCAAGATACTAGCT
TTGCAGAATGCTCAGAGAAAGCGAAAAATGGAACATGATGGTTCTCTTTTCAAGCAGTAGGAATTGGAACATTA
TTACAGCAGCCAGACGATCATGCAGCTACTACATCACTTTCTTGGAACGTGTAAAGGATGCAATCTAGTGAA
CAGAATGGAATGGAGCAAAAGACAATTATTTAATACCCTCTGATTTAGCATGTAGACTGCTGGGGCAATCAATG
GATGAAAGTGGATTACCACAGCTGACCAGTTATGATTGTGAAGTTAATGCTCCTATACAAGGCAGCAGAAACCTA
CTGCAGGGTGAAGAATTACTCAGAGCTTTGGATCAAGTTAACTGAGCTTTTTCTTAATTTCAATCTTTTTTTGG
ACACTGGTGGCTCACTACCTAAAGCAGTCTATTTATTTTCTACATCTAATTTTAGAAGCCTGGCTACAATACT
GCACAAACTTGGTTAGTTCAATTTTTGATCCCTTTCTACTTAATTTACATTAATGCTCTTTTTTAGTATGTTCT
TTAATGCTGGATCACAGACAGCTCATTTTCTCAGTTTTTTGGTATTTAAACCATTGCATTGCAGTAGCATCATTT
TAAAAATGCACCTTTTTATTTATTTATTTTGGCTAGGGAGTTTATCCCTTTTTCGAATTATTTTTAAGAAGAT
GCCAATATAATTTTTGTAAGAAGGCAGTAACCTTTTCATCATGATCATAGGCAGTTGAAAAATTTTTACACCTTT
TTTTACATTTTACATAAAATAAATGCTTTGCCAGCAGTACGTGGTAGCCACAATTGCACAATATATTTCTTA
AAAAATACCAGCAGTTACTCATGGAATATATTCTGCGTTTATAAACTAGTTTTTAAGAAGAAATTTTTTTGGC
CTATGAAATTGTTAAACCTGGAACATGACATTGTTAATCATATAAATGATTCTTAAATGCTGTATGGTTTTATT
ATTTAAATGGGTAAAGCCATTTACATAATATAGAAAGATATGCATATATCTAGAAGGTATGTGGCATTTATTTGG
ATAAAATCTCAATTCAGAGAAATCATCTGATGTTTCTATAGTCACTTTGCCAGCTCAAAAGAAAACAATACCCT
ATGTAGTTGTGGAAGTTATGCTAATATTGTGTAAGTATTAACCTAAATGTTCTGCCTACCCTGTTGGTAT

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FIGURE 130B

AAAGATATTTTGAGCAGACTGTAAACAAGAAAAAAAAAATCATGCATTCTTAGCAAATTGCCTAGTATGTTAAT
TTGCTCAAAATACAATGTTTGATTTTATGCACTTTGTGCTATTAACATCCTTTTTTTCATGTAGATTTCAATAA
TTGAGTAATTTTAGAAGCATTATTTTAGGAATATATAGTTGTCACAGTAAATATCTTGTTTTTCTATGTACATT
GTACAAATTTTTCATTCTTTTGCTCTTTGTGGTTGGATCTAACACTAACTGTATTGTTTTGTACATCAATAA
ACATCTTCTGTGGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 131

MEGAGGANDKKKISSERRKEKSRDAARRRSKESEVIFYELAHQLPLPHNVSSHLDKASVMRLTISYLRVRKLLDA
GDLDIEDDMKAQMNCFYLKALDGFVMVLTDDGDMIYISDNVNKYMGLTQFELTGHSVDFDTHPCDHEEMREMLTH
RNLGVKKGKEQNTQRSFFLRMKCTLTSGRTMNIKSATWKVLHCTGHIHVYDTNSNQPCGYKKFPMTCLVLICE
PIPHPSNIEIPLDSKTFLSRHSMDKFSYCDERITELMGYEPEELLGRSIYEYHALDSHLTKTHHDMFTKGQV
TTGQYRMLAKRGGYVWVETQATVIYNTKNSQPCIVCVNYVVSGLIQHDLIFSLQQTECVLKPVESSDMKMTQLF
TKVESEDITSSLFDKLKKEPDALTLLAPAAGDTIISLDFGSNDTETDDQQLLEEVPLYNDVMLPSPNEKLQINLAM
SPLPTAETPKPLRSSADPALNQEVALKLEPNPESLELSFTMPQIQDQTPSPSDGSTRQSSPEPNSPSEYCFYVDS
DMVNEFKLELVEKLFADTEAKNPFSTQDLDLEMLAPYIPMDDDFQLRSFDQLSPLESSASPESASPQSTVT
VFQQTQIQEPTANATTTTATDELKTVTKDRMEDIKILIASPSPTHIKETTSATSSPYRDTQSRTASPNRAGKG
VIEQTEKSHPRSPNVLSVALSQRTTVPPEELNPKILALQNAQRKRKMEHDGSLFQAVGIGTLLQQPDDHAATTSL
SWKRVKGCKSSEQNGMEQKTIILIPSDLACRLLGQSMDESGLPQLTSYDCEVNAPIQGSRNLLQGEELLRALDQV
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FIGURE 132

GCTTAGTGTAAACCAGCGGCGTATATTTTTTAGGCGCCTTTTCGAAAACCTAGTAGTTAATATTCATTGTTTAAATCTTATTTTTATTTTTTAAGCTCAAACCTGCTTAAGAATACCTTAATTCCTTAAAGTGAAATAATTTTTTGCAAAGGGGTTTCCTCGATTGGAGCTTTTTTTTCTTCCACCGTCATTTCTAACTCTTAAAACCAACTCAGTTCCATCATGGTGATGTTCAAGAAGATCAAGTCTTTTGAGGTGGTCTTTAACGACCCTGAAAAGGTGTACGGCAGTGGCGAGAGGGTGGCTGGCCGGGTGATAGTGGAGGTGTGTGAAGTTACTCGTGTCAAAGCCGTTAGGATCCTGGCTTGGCGAGTGGCTAAAGTGCTTTGGATGCAGGGATCCCAGCAGTGCAAACAGACTTCGGAGTACCTGCGCTATGAAGACACGCTTCCTCTGGAAGACCAGCCAACAGGTGAGAATGAGATGGTGATCATGAGACCTGGAAACAAATATGAGTACAAGTTCGGCTTTGAGCTTCTCAGGGGCCCTCTGGGAACATCCTTCAAAGGAAAATATGGGTGTGTAGACTACTGGGTGAAGGCTTTTCTTGACCGCCCGAGCCCAACTCAAGAGACAAAGAAAACTTTGAAGTAGTGGATCTGGTGGATGTCAATACCCCTGATTTAATGGCACCTGTGTCTGTCTAAAGAAAAGAAAAGTTTCTGCAATGTTTATTCTGATGGGC GGGTGTCTGTCTGTCTGAATTGACAGAAAAGGATTCTGTGAAGGTGATGAGATTTCCATCCATGCTGACTTTGAGAATACATGTTCCCGAATTGTGGTCCCCAAAGTGCCATTGTGGCCCGCCACACTTACCTTGCCAATGGCCAGACAAGGTGTGACTCAGAAGTTGTGTCATCAGTCAGAGGCAATCATATTATCTCAGGGACATGCGCATCATGGCGTGGCAAGAGCCTTCGGGTTTCAAGATCAGGCCCTTCTATCCTGGGCTGCAACATCCTTCGAGTTGAATATTCCTTAC TGATCTATGTTGCGCTTCTGGATCCAAGAAGGTGATCCTTGACCTGCCCCCTGGTAATTGGCAGCAGATCAGGTCTAAGCAGCAGAACATCCAGCATGGCCAGCCGAACAGCTCTGAGATGAGTTGGGTAGATCTGAACATCCCTGATACCCAGAAGCTCCTCCCTGCTATATGGATGTCAATCCTGAAGATCACCGATTGGAGAGCCCAACAACCTCCTCTGCTAGATGACATGGATGGCTCTCAAGACAGCCCTATCTTTATGTATGCCCTGAGTTCAAGTTTATGCCACCACCGACTTATACTGAGGTGGATCCCTGCATCCTCAACAACATGTGCACTGAGCATGTGGAAGAAAAGAAGCAGCTTTACTTACTTGTCTTTTTTGTCTCTCTTCTGACACTCACTTTTTTCAGAGACTCAACAGTCTCGTCAATGGAGTGTGGTCCACCTTAGCCTCTGACTTCTTAATGTAGGAGGTGGTCAGCAGGCAATCTCCTGGGCCCTTAAAGGATGCGGACTCATCCTCAGCCAGCGCCCATGTTGTGTGATACAGGGGTGTTTGTGGATGGGTTTAAAAATAACTAGAAAACTCAGGCCCATCCATTTTCTCAGATCTCCTTGAAAATTGAGGCCCTTTTCGATAGTTTCGGGTGAGGTAAAAATGGCCTCCTGGCGTAAGCTTTTCAAGGTTTTTGGAGGCTTTTTGTAAATTGTGATAGGAACTTTGGACCTTGAACCTTACGTATCATGTGGAGAAGAGCCAATTTAACAACTAGGAAGATGAAAAGGGAAATTGTGGCCAAAACCTTTGGGAAAAGGAGGTTCTTAAATCAGTGTTTCCCTTTGTGCACTTGTAGAAAAAAAAGAAAAACCTTCTAGAGCTGATTGATGGACAATGGAGAGAGCTTTCCCTGTGATTATAAAAAAGGAAGCTAGCTGCTCTACGGTCACTTTTGCTTAGAGTACTTTAACCTGGCTTTTAAAGCAGTAGTAAGTGCCCCACCAAGGTCTTAAAGCCATTTTGGAGCCTATTGCACTGTGTTCTCCTACTGCAAATATTTTCATATGGGAGGATGGTTTTCTCTTCATGTAAGTCTTGGAAATTGATCTAAGGTGATGTTCTTAGCACTTTAATTCCTGTCAAATTTTTGTCTCTCCCTTCTGCCATCTTAAATGTAAGCTGAACTGGTCTACTGTGTCTTAGGGTTAAGCCAAAAGACAAAAAAATTTTACTACTTTTGAGATTGCCCCAATGTACAGAATTATATAATTCTAACGCTTAAATCATGTGAAAGGGTGTGCTGTGTCAGCCTTGCCCACTGTGACTTCAAAACCAAGGAGGAACCTTGATCAAGATGCCCAACCCTGTGATCAGAACCTCCAAATACTGCCATGAGAACTAGAGGGCAGGTGTTTCAAAAAGCCCTTTGAACCCCTTCTGCCCCTGTGTTAGGAGATAGGGATATTGGCCCCCTCAC TGCAGCTGCCAGCACTTGGTCAGTCACCTCTCAGCCATAGCACTTTGTTCACTGTCTGTGTGTCAGAGCACTGAGCTCCACCCCTTTCTGAGAGTTATTACAGCCAGAAAGTGTGGGCTGAAGATGGTTGGTTTCATGTGGGGGTATTATGTACCC

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FIGURE 133

MVMFKKIKSFEVVFNDPEKVYGSGERVAGRVIVEVCEVTRVKAVRILACGVAKVLWMQGSQQCKQTSEYLRVEDT
LLEDQPTGENEMVIMRPGNKYEYKFGFELPQGPLGTSFKGKYGCVDYWVKAFLDRPSQPTQETKKNFVVDLVD
VNTPDLMAFVSAKKEKKVSCMFIPDGRVSVSARIDRKGFCGEDEISIHADFENTCSRIVVPKAAIVARHTYLANG
QTKVLTQKLSSVRGNHIIISGTCASWRGKSLRVQKIRPSILGCNLRVEYSLLIYVSVPGSKKVILDPLVIGSRS
GLSSRTSSMASRTSSEMSWVDLNIPDTPEAPPCYMDVIPEDHRLESPTITPLDDMDGSQDSPIFMYAPEFKFMP
PTYTEVDPCILNNNVQ

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FIGURE 134

AGTGTGAAATCTTCAGAGAAGAATTTCTCTTTAGTTCTTTGCAAGAAGGTAGAGATAAAGACACTTTTTCAAAA
TGGCAATGGTATCAGAATTCCTCAAGCAGGCCTGGTTTTATTGAAAATGAAGAGCAGGAATATGTTCAAACCTGTGA
AGTCATCCAAAGGTGGTCCCGGATCAGCGGTGAGCCCCCTATCCTACCTTCAATCCATCCTCGGATGTCGCTGCCT
TGCATAAGGCCATAATGGTTAAAGGTGTGGATGAAGCAACCATCATTGACATTCTAACTAAGCGAAACAATGCAC
AGCGTCAACAGATCAAAGCAGCATATCTCCAGGAAACAGGAAAGCCCCCTGGATGAAACACTTAAGAAAGCCCTTA
CAGGTCACCTTGAGGAGGTGTTTTAGCTCTGCTAAAACTCCAGCGCAATTTGATGCTGATGAACCTTCGTGCTG
CCATGAAGGGCCTTGGAACCTGATGAAGATACTCTAATTGAGATTTTGGCATCAAGAACTAACAAAGAAATCAGAG
ACATTAACAGGGTCTACAGAGAGGAACCTGAAGAGAGATCTGGCCAAAGACATAACCTCAGACACATCTGGAGATT
TTCGGAACGCTTTGCTTTCTCTTGCTAAGGGTGACCGATCTGAGGACTTTGGTGTGAATGAAGACTTGGCTGATT
CAGATGCCAGGGCCTTGATGAAGCAGGAGAAAGGAGAAAGGGGACAGACGTAAACGTGTTCAATACCATCCTTA
CCACCAGAAGCTATCCACAACCTTCGCAGAGTGTTTCAGAAATACACCAAGTACAGTAAGCATGACATGAACAAAG
TTCTGGACCTGGAGTTGAAAGGTGACATTGAGAAATGCCTCACAGCTATCGTGAAGTGCGCCACAAGCAAACCAG
CTTTCTTTGCAGAGAAGCTTCATCAAGCCATGAAAGGTGTTGGAACCTCGCCATAAGGCATTGATCAGGATTATGG
TTTCCCGTTCTGAAATTGACATGAATGATATCAAAGCATTCTATCAGAAGATGTATGGTATCTCCCTTGCCAAG
CCATCCTGGATGAAACCAAGGAGATTATGAGAAAATCCTGGTGGCTCTTTGTGGAGGAACTTAAACATTCCCTT
GATGGTCTCAAGCTATGATCAGAAGACTTTAATTATATATTTTCATCCTATAAGCTTAAATAGGAAAGTTTCTTC
AACAGGATTACAGTGTAGCTACCTACATGCTGAAAAATATAGCCTTTAAATCATTTTATATTATAACTCTGTAT
AATAGAGATAAGTCCATTTTTTAAAAATGTTTTCCCAACCATAAAACCCTATACAAGTTGTTCTAGTAACAAT
ACATGAGAAAGATGTCTATGTAGCTGAAAATAAAATGACGTCACAAGAC

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FIGURE 135

MAMVSEFLKQAWFIENEEQEYVQTVKSSKGGPGSAVSPYPTFNPSSDVAALHKAIMVKGVDEATIIDILTKRNNA
QRQQIKAAYLQETGKPLDETLKKALTGHLEEVVLALLKTPAQFDADELRAAMKGLGTDEDTLIEILASRTNKEIR
DINRVYREELKRDIAKDI TSDTSGDFRNALLSLAKGDRSEDFGVNEDLADSDARALYEAGERRKGTDVNVFNTIL
TTRSYPQLRRVFQKYTKYSKHD MNKVLDELKGDIEKCLTAIVKCATSKPAFFAEKLBHQAAMKGVGTRHKALIRIM
VSRSEIDMNDIAFYQKMYGISLCQAILDETKGDYEKILVALCGGN

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FIGURE 136

GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA
CTTAACCTCATTTCTCTTTAGAGCATTTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCAGGCCGTCAAGA
CTTGAGTTCTGCCTCGCTTCCCGCGCGGTGCGAGCCCTCAGCCCACTTAGGATAATGGCGACAGCTGAGGTACT
GAACATTGGTAAAAAATTATATGAGGGTAAACAAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAAGTCTC
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACACCTGGAAGGAAAAGCTGCAATCTC
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAAAACTGCCTTACCAGAAAAATGTGG
GGAGACAGCTTTTATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAGAATAGCAACTGGTTC
TTTTCTCAAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTTCAAGGA
TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCCTTGGTGGACTTCTTAT
AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTGATGTAACCACCAAGAAATTTGTTCTTGCTGA
TGTATTGACAATGATTCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAACAGAAAGACAAACAGTCTTATCG
GGACCTCAAAAGAACTAATCCTGAAGGGCTCCAAATGGTAAAGAAAACTTTGAGTGGGTTGCAGAGAGAGTAGA
GTTGCTTTTGAATCAGAAAGTCAGTGCAGGGTTGTAGTGTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA
AAAAATCAAGAAGGCTGTGGAAATTTTGGCATTCCATGTGAACCTCGAGTAACATCTGCGCATAAAGGACCAGA
TGAAGCTCTGAGGATTAAGCTGAGTATGAAGGGGATGGCATTCTACTGTATTTGTGGCAGTGGCAGGCAGAAG
TAATGGTTTGGGACCAGTGTGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCTCTCCCTCACACCAGACTG
GGGAGTTTGGGACAGTGTGTCTCTCTTCGACTACCCAGTGGTCTTGGCTGTTCAACCGTACTTTCTCCAGAAGG
ATCAGCTCAATTTGCTGCTCAGATATTTGGGTTAAGCAACCATTTGGTATGGAGCAAACTGCGAGCAAGCATTTT
GAACACATGGATTTCTTGAAGCAGGCTGACAAGAAATCAGAGAATGTAATTTATAGAAAGAATGCCATTGAA
TTTTTTAGGGGAAAACTACAAATTTCTAATTTAGCTGAAGGAAAAATCAAGCAAGATGAAAAGGTAATTTTAAAT
TAGAGAACACAAATAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAACATGAGCATCTAAC
CCTCCTTTCTTAGGCTAGACACCAAGATATTTAGCCAGCCTTTATCATTCTCTTACTTTATCCTTTTTCTTA
AGTATTGGTGGTCACTACTATTGAGTTTCTTCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAAAGT
GCATTACTGACTCCAGCTATATTTCTCCAGACTTGCAATTTTTTTTTTTTTTTTGGAGACAGGGTCTCACTGTG
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCACTGTGCTTTCCCTCCTGGGCTCAAGCAGTCTCTCCACCT
CAGCCTCTCGACTAACAGGGACTATAATCTTGAGCACCATGCCGAGCTAATTTTATTTTTTTGTAGAGATGAGCT
CTCACTATGTACCCAGGTTCTGTCTCAAACTCCTGAACCTAGTAATTTCTCTATCTCAGCCTCCCAAAGTGCTA
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG
GGCACTCATGAAAAACAGAATGCTCCCACTTTATTCTCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT
GCAAGTCAGAAGCTTGATTTCATCATTGATGTTTTCTCACGTTTCACATCTCACTCATACCAAGTCATGTTGG
TGTTAATTTCTGATTAAACCCTGAATTTACCGTCTTCTCATCTCTGTACAAAAGCCTCAAGTGAGGGTCAAAAT
CAACATTATCCTGATCTAGACAGCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC
AATAAACTCTCTTTTGACCCACAGACTTCTTTGAAAATATACATGCTGTTGACCCTCTCTGTAGAAAACCGACA
CATAAACTTACCAACAGATTTTATTGGTTCTTGGGTTCTCCCGAAGCCTATCCATGGTTTATAGATTAAGAATT
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG
AGGTGAGGAGTTTGAAGCAGCCTGGCCAACATGGTGAAACCTGTCTCTACTAAAAATACAAAAAGTAGCCAGC
CGTGATGACAGGCACCTGTAATCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA
GGTTGCAGTGAGCCTGGATCATGCCACTGCACTCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAAGGGGAA
AAAAAAATTTGCTGATGTGACCCATGAAGGGAATCATTTCCTCGTAATTTTGGACTGCCACACATTGGTACCT
TTAGTTCTCTGAAGGCCACGTTTTTATCATTAAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTCTGCTGTCCA
TGAAACCTTCTGTAACCACAGTGACTACAAGTAGTTCTTTCTCTATTGAATTATTAGGTCCAGAATAGAAGATGT
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTGAGAGATTAGTA
AATTATAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAATTAAGGACTTAGAA
GATTAATAAAAAAAAAAAAAA

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FIGURE 137

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFOLLQEAGIKT
AFTRKCGETAFAIAPQCEMPIEWVCRRIATGSFLKRNPVGVEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF
CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ
KDKQSYRDLKEVTPEGLQMVKKFEWVAERVELLLKSESQCRVVVLMGSTSDLGHCEKIKKACGNFGIPCELRVT
SAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

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FIGURE 138

AAGAAAAAATAGGCCTGGTTGCCAXATTAAGGTCCCTGGGCTATTTTAAACCGGATTGGATACXAGGTCTT
TCCAXAGGCCGTATTTTGCCCCCGTAACCCXTAAAAAAGATTTCAAAATGCCGTTTTCAGAACCTG
GGTTTAAATAGCAGTATTGAATTTGTAAGCTTAGTAGTTGCAGAAATTGAACACTAGGTGGCACTCAGTTATCTT
AACAGGGGAAGTACTGATACAATTGTTGACTTTTCTTTTACTATGTGTAAGAAATACCCCAAACATGAAAAGATT
GTTTGTATCATATGCATGTATGTAGAATATTTTGCAGAGCAGAAAGATTATGTTAGAAGTGTGATTTTATTTT
CAGAAGTCATATACATGTAAGCTACAATTTGAGTGCCTTATAAACACTTAAGATATATATAAAATTTTAAATT
CATAGCAACTTGTAAAAATAAAATACTTGTGAAAAGCCTTTTCAACATATCCCTAAGCTAAGGGAAGAGGAA
GGAATAACAACCTCAGTGAAAAGATGGTCTCCAGTTTCTGAATGAAAAGCTACAGCTGAGAAATAAAATAAAATG
TCATGCTGCAGAAATATGTTATACCCTTATTTGTGTTAAGGATATATTTTATTATGTGAATGCTTTTGTGTTTGT
TTTTGTGTTTTGTTTTGTGTTGTTTGGGAATTAGCTTTACTGGTAACTTCCTTATTTAGTTTTTAGTGGTCAA
CTCTAATAAAATGAACTAGGGCTGAGCTAGTTAGCCCTCACTAGCCAACTGAACTCTATGCAACATTAAAG
AAGAGATCCATCATGTAGCTTGTGACACTTTATTTTATTAGTCACCGGGGAACCTTTTCAGTGATGAAAATACAC
AGGGTAATAAACCTTCACATGGCTTCAAAAGGAAAACAAGCAAATCTTCTCTAATCTACTCTTACTATAATTTCC
TAAGTGTACACCAAACCTCTGGATTTAAAAATCTGAAGTACTATAGAACATTAAGTTGAAGAATGAAAATTAAGAG
TACGTATTCATGGTTTATATTTCTTATTCTATGGAGTTCGTGAACACATCTAGGTGGAATGCATCTGAGACTAAG
GGCTGGTTTTTAATCCTCATAAGAAACCAGCCTTGAAGAATTAACAATTCTCTTCATTGGTATTCTAAACCTCCT
AAGATATTTAGGCTTCTGTACATAAAAGTGTGTTTGTCTAAATTTACAGTATATATAGATCCTTTCATATTATTTT
ACTAAGAATGTTTGAACCTTGCATATTTGATATAGTTCCCTGGTAGGAATAGCACAGCTCAAACATTAGTTTTTCT
ACTTACCTCCTCTAACACGTGGTTTGTCTGGAGAGTTTCTAAAAATTCAGCTATAACCCAGTTCATGTATTAC
TGGTGATTGTTCTTGCTGAGGTAGTAACAGCCCAATCTTGGGCTGTAAATCCTAGGAAATCTCGAATCATAGTG
ATTAAAAATAGTTGGGGTAAAGTTGTAGCTTATATGCAATACTACTTGGAGGAATCTTCTACTAATTTGTATTTA
ATGTGGAAATGTATAGTTTCATTGATTTAATCATAAATAATGGAAATGGTCTCCAAGAAGTTTATTTTTTCATT
TTTTTGCTTATACACTCTGATTCCTATAATACAGTGCTATAAGCTATGCACAGAAAATAAAATGTTTGAAATCCA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAXGGGG

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FIGURE 139

MVLFLFFVFVFCCLYWELALLVTSLSF

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FIGURE 140A

CGCGGGTCTGTGGAGAGCCGGGTGCGAGCGGGCGGCAGCAGAGGGGAAAAAGAGCTGAGCGGAGACCAAAGTCAGC
CGGGAGACAGTGGGTCTGTGAGAGACCGAATAGAGGGGTGGGGCCACGAGCGCCATTGACAAGCAATGCGGAAG
AAACAGAAAAACAAGAGCGAAGACAGCACCAAGGATGACATTGATCTTGATGCCTTGCTGCAGAAATAGAAGGA
GCTGGTGCTGCCAAAGAACAGGAGCCTCAAAAAGTCAAAAGGAAAAAGAAAAAGAGAAAAAAAGCAGGACTTT
GATGAAGATGATATCCTGAAAGAAGTGAAGAATTGTCTTTGGAAGCTCAAGGCATCAAAGCTGACAGAGAACT
GTTGCAGTGAAGCCACAGAAAAACAATGAAGAGGAATTCACCTCAAAAGATAAAAAAGAAAGGACAGAAGGGC
AAAAACAGAGTTTTGATGATAATGATAGCGAAGAATTGGAAGATAAAGATTCAAAATCAAAAAAGACTGCAAAA
CCGAAAGTGGAAATGTACTCTGGGAGTGATGATGATGATGATTTTAACTAACTTCTTAAAAAGCTAAAGGGAAA
GCTCAAAAATCAAAATAAGAAGTGGGATGGGTGAGAGGAGGATGAGGATAACAGTAAAAAATTAAGAGCGTTCA
AGATAAATTTCTTCTGGTGAAAGTGGTGATGAATCAGATGAATTTTGAATCTAGAAAAGGACAGAAAAAAAT
CAGAAAAACAAGCCAGGTCTTAACATAGAAAAGTGGGAATGAAGATGATGACGCTCTTCAAAATTAAGACAGTG
GCCCCAAAAGAAGGCAGAAAAGAAGGAGCGCGAGAGAAAAAGCGAGATGAAGAAAAAGCGAACTGCGGAAGCTG
AAAGAAAAAGAAGAGTTAGAAACAGGTAAAAAGGATCAGAGTAAACAAAAGGAATCTCAAAGGAAATTTGAAGAA
GAACTGTAAATCCAAAGTGACTGTTGATACTGGAGTAATTCCTGCCTCTGAAGAGAAAGCAGAGACTCCACAC
GCTGCAGAAGATGACAAATGAAGGAGACAAAAAGAAGAAAGATAAGAAGAAAAAGAAAGGAGAAAAAGGAAGAAAA
GAGAAAGAGAAGAAAAAGGACCTAGCAAAAGCCACTGTTAAAGCTATGCAAGAAGCTCTGGCTAAGCTTAAAGAG
GAAGAAGAAAGACAGAAAGAGAGAAGAGGAAGAACGTATAAAACGGCTTGAAGAATTAGAAGCCAAAGCGTAAAGAA
GAGGAACGATTGGAACAAGAAAAAGAGAAAGGAAAAAGCAAAAAAGAAAGAAAGAAAGAACGCTTGAAAAAA
GAAGGGAACTTTTTAACTAAATCCAGAGAGAAGCCAGAGCCAGAGCCGAAGCTACTCTTAACTGCTACAAGCT
CAGGGTGTGAAGTGCCATCAAAAGACTCTTTGCCAAAGAAGAGGCCAATTTATGAAGATAAAAAAGGAAAAAA
ATACCACAGCAGCTAGAAAAGTAAAGAAGTGTCTGAATCAATGGAATTATGTGCTGCTGTAGAAGTTATGGAACAA
GGAGTACCAGAAAAGGAAGAGACACCACCTCTGTTGAACCAGAAGAAGAAGATACTGAGGATGCTGGATTG
GATGATTGGGAAGCTATGGCCAGTGATGAGGAGACAGAAAAAGTAGAAGGAAACACAGTTCATATAGAAGTAAAA
GAAAACCTCTGAAGAGGAGGAGGAGGAGGAAGAAGAGGAAGAAGAGATGAAGAAAGTGAAGAAGAGGAGGAAGAG
GAGGGAGAAAGTGAAGGCAGTGAAGGTGATGAGGAAGATGAAAAGGTGTCAGATGAGAAGGATTCAGGGAAGACA
TTAGATAAAAAAGCCAAAGTAAAGAAATGAGCTCAGATTCTGAATATGACTCTGATGATGATCGGACTAAAGAAGAA
AGGGCTTATGACAAAGCAAAACGGAGGATTGAGAAACGGCGACTTGAACATAGTAAAAATGTAAACACCGAAAAG
CTAAGAGCCCTATTATCTGCGTACTTGGGCATGTGGACACAGGGAAGACAAAAATCTAGATAAGCTCCGTCAC
ACACATGTACAAGACGGTGAAGCAGGTGGTATCACACAACAATTTGGGCCACCAATGTTCTCTTGAAGCTATT
AATGAACAGACTAAGATGATTAAAAATTTTGATAGAGAGAATGTACGGATTCCAGGAATGCTAATTATTGATACT
CCTGGGCATGAATCTTTCAGTAATCTGAGAAATAGAGGAAGCTCTCTTTGTGACATTGCCATTTTAGTTGTTGAT
ATTATGCAIGGTTTGGAGCCCCAGACAATTGAGTCTATCAACCTTCTCAAATCTAAAAATGTCCCTCATTGTT
GCACTCAATAAGATTGATAGGTTATATGATTGGAAGAAAGAGTCTGACTCTGATGTGGCTGCTACTTTAAAGAAG
CAGAAAAAGAATACAAAAGATGAATTTGAGGAGCGAGCAAAGGCTATTATTGTAGAAATTTGCACAGCAGGGTTTG
AATGCTGCTTTGTTTATGAGAATAAAGATCCCCGCACTTTTGTGCTTTTGGTACCTACCTCTGCACATACTGGT
GATGGCATGGGAAGTCTGATCTACCTTCTTGTAGAGTTAACTCAGACCATGTTGAGCAAGAGACTTGCACACTGT
GAAGAGCTGAGAGCACAGGTGATGGAGGTTAAAGCTCTCCCGGGGATGGGCACCCTATAGATGTCATTTTGATC
AATGGGCGTTTGAAGGAAGGAGATACAATCATTGTTCTGGAGTAGAAGGGCCATTGTAAGTCAAGATTGAGGC
CTCCTGTTACCTCCTCTATGAAGGAATTACAGTGAAGAACCAGTATGAAAAGCATAAAGAAGTAGAAGCAGCT
CAGGGGGTAAAGATTCTTGAAAAGACCTGGAGAAAACATTGGCTGGTTTACCCCTCCTTGTGGCTTATAAAGAA
GATGAAATCCCTGTTCTTAAAGATGAATTGATCCATGAGTTAAAGCAGACACTAAATGCTATCAAATTAGAAGAA
AAAGGAGTCTATGTCCAGGCATCTACACTGGGTTCTTTGGAAGCTCTACTGGAATTTCTGAAAACATCAGAAGTG
CCCTATGCAGGAATTAACATTGGCCCAGTGCATAAAAAAGATGTTATGAAGGCTTCAGTGATGTTGGAACATGAC
CCTCAGTATGCAGTAATTTTGGCCTTCGATGTGAGAATTGAACGAGATGCACAAGAAATGGCTGATAGTTTAGGA
GTTAGAATTTTTAGTGCAGAAATTATTTATCATTATTTGATGCCTTTACAAAATATAGACAAGACTACAAGAAA
CAGAAACAAGAAGAATTAAGCACATAGCAGTATTTCCCTGCAAGATAAAAATCCTCCCTCAGTACATTTTTAAT
TCTCGAGATCCGATAGTATGGGGTGACGGTGAAGCAGGTGAGGTGAACAGGGGACCCCATGTGTGTCCCA
AGCAAAAATTTTGTGACATCGGAATAGTAACAAGTATTGAAATAAACCATAAACAAGTGGATGTTGCAAAAAA

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FIGURE 140B

GGACAAGAAGTTTGTGTAAAAATAGAACCTATCCCTGGTGAGTCACCCAAAAATGTTTGGAAGACATTTTGAAGCT
ACAGATATTCTTGTAGTAAGATCAGCCGGCAGTCCATTGATGCACTCAAAGACTGGTTCAGAGATGAAATGCAG
AAGAGTGACTGGCAGCTTATTGTGGAGCTGAAGAAAGTATTGAAATCATCTAATTTTTTTCATGGAGCAGGAA
CTGGAGTAAATGCAATACTGTGTTGTAATATCCCAACAAAAATCAGACAAAAATGGAACAGACGTATTTGGACA
CTGATGGACTTAAGTATGGAAGGAAGAAAAATAGGTGTATAAAATGTTTTCCATGAGAAACCAAGAACTTACAC
TGGTTTGACAGTGGTCAGTTACATGTCCCCACAGTTCCAATGTGCCTGTTCACTCACCTCTCCCTTCCCCAACCC
TTCTCTACTTGGCTGCTGTTTTAAAGTTTGCCCTTCCCCAAATTTGGATTTTATTACAGAGTCTAAAGCTCTTT
CGATTTTATACTGATTAAATCAGTACTGCAGTATTGATTAAACCA

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FIGURE 141

MGKKQKNKSEDSTKDDIDLDAEIEGAGAAKEQEPQKSKGKKKKEKKQDFDEDDILKELEELSLEAQGIKAD
RETVAVKPTENNEEEFTSKDKKKKGQKGGKQSFDDNDSEELDKDSKSKKTAKPKVEMYSGSDDDDDFNKLPKKA
KGKAQKSNKKWDGSEEDEDNSKKIKERSRINSSGESGDESDEFLOSRRKGQKNQKNKPGPNIESGNEDDDASFKI
KTVAQKKAEEKERERKKRDEEKAKLRKLKEKEELETGKKDQSKQKESQRKFEEETVKSQVTVDTGVIPASEEKAE
TPTAAEDDNEGDKKKKDKKKKKGEKEEKEKEKKKGPSKATVKAMQEALAKLKEEEEERQKREEEERIKRLEELEAK
RKEERLEQEKREKKQKEKERKERLKEGKLLTKSQREARARAEATLKLQAQGVVPSKDSLPPKRPFIYEDKK
RKKIPQQLESKEVSESMELCAAVEVMEQGVPEKEETPPPVEPEEEEDTEDAGLDDWEAMASDEETEKVEGNTVHI
EVKENPEEEEEEEEEEEDEESEEEEEEGESEGESEGEDEDEKVSDEKDSGKTLDDKKPSKEMSSDSEYDSDDDR
KEERAYDKARRIEKRRLEHRSKNVNTKLRAPIIICVLGHVDTGKTKILDCLRHTHVQDGEAGGITQIWIATNVPL
EAINETKMIKNFDRENVRIIPGMLIIDTPGHESFSNLRNRGSSLCDIAILVVDIMHGLEPQTIESINLLKSKKCP
FIVALNKKIDRLYDWKKSPDSDVAATLKKQKNTKDEFEEERAKAIIVEFAQQGLNAALFYENKDPRTFVSLVPTSA
HTGDGMGLIYLLVELTQTMLSKRLAHCEELRAQVMEVKALPGMGTTIDVILINGRLKEGDTIIVPGVEGPVITQ
IRGLLLPPPMKELRVKNQYKHKVEEAAQGVKILGKDLEKTLAGLPLLVAYKEDEIPVLKDELIHELKQTLNAIK
LEEKGVYVQASTLGSLEALLEFLKTSEVPYAGINIGPVHKKDVMKASVMLEHDPQYAVILAFDVRIERDAQEMAD
SLGVRIFSAEIIYHLFADFQYRQDYKKQKQEEFKHIAVFPCKIKILPQYIFNSRDPIMMGVTVEAGQVKQGTTPM
CVPSKNFVDIGIVTSIEINHKKQVDVAKKGQEVCKIEPIPGESPKMFGRHFEATDILVSKISRQSIDALKDWFRD
EMQKSDWQLLIVELKKVFEII

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FIGURE 142

CCCGGACGTGCGGCTCCCTCGGCCTCCTCGCCATGACGCGGACGACTCCCGGGCCCCCAAGGGCTCCTTGCGG
AAGTTCCITGGAGCACCTCTCCGGGGCCGGCAAGGCCATCGGCGTGCTGACCAGCGGGGGGATGCTCAAGGTATG
AACGCTGCCGTCCGTGCCGTGGTGCGCATGGGTATCTACGTGGGGGCCAAGGTGTACTTCATCTACGAGGGCTAC
CAGGGCATGGTGGACGGAGGCTCAAACATCGCAGAGGCCGACTGGGAGAGTGTCTCCAGCATCCTGCAAGTGGGC
GGGACGATCATTGGCAGTGCGCGGTGCCAGGCCTTCGCGACGCGGGAAGGCCGCTGAAGGCTGCTTGCAACCTG
CTGCAGCGCGGCATACCAACCTGTGTGTGATCGCGGGGACGGGAGCCTCACCGGGGCCAACCTCTTCCGGAAG
GAGTGGAGTGGGCTGCTGGAGGAGCTGGCCAGGAACGGCCAGATCGATAAGGAGGCCGTGCAGAAGTACGCCTAC
CTCAACGTGGTGGGCATGGTGGGTCCATCGACAATGATTTCTGCGGCACCGACATGACCATCGGCACGGACTCC
GCCCTGCACAGGATCATCGAGGTCTGCGACGCCATCATGACCACGGCCAGAGCCACCAGAGGACCTTCGTTCTG
GAGGTGATGGGACGACACTGTGGGTACCTGGCCCTGGTGAGTGCCTTGGCCTGCGGTGCGGACTGGGTGTTCTT
CCAGAATCTCCACCAGAGGAAGGCTGGGAGGAGCAGATGTGTGTCAAACCTCTCGGAGAACCCTGCCCGGAAAAA
AGGCTGAATATTATTATTGTGGCTGAAGGAGCAATTGATACCCAAAATAAACCCATCACCTCTGAGAAAATCAAA
GAGCTTGTCTGTCACGAGCTGGGCTATGACACACGTGTGACCATCCTCGGGCACGTGCAGAGAGGAGGGACCCCT
TCGGCATTTCGACAGGATCTTGGCCAGCCGATGGGAGTGGAGGCAGTCATCGCCTTGCTAGAGGCCACCCCGGAC
ACCCAGCTTGGCTGCTGTCACTGAACGGGAACACGCGCGTGCCTGCCCTGATGGAGTGCCTGCAGATGACT
CAGGATGTGCAGAAGCGATGGACGAGAGGAGATTTCAAGATGCGGTTGACTCCGAGGGAGGAGCTTTGCGGGC
AACCTGAACACCTACAAGCGACTTGCCATCAAGCTGCCGGATGATCAGATCCCAAAGACCAATTGCAACGTAGCT
GTCAATCAACGTGGGGCACCCGCGGTGGGATGAACGCGCCGTACGCTCAGCTGTGCGCGTGGGCATTGCCGAC
GGCCACAGGATGCTCGCCATCTATGATGGCTTTGACGGCTTCGCCAAGGGCCAGATCAAAGAAATCGGCTGGACA
GATGTGCGGGGCTGGACCGGCCAAGGAGGCTCCATTCTTGGGACAAAACGCGTTCTCCCGGGGAAGTACTTGGAA
GAGATCGCCACACAGATGCGCACGCACAGCATCAACGCGCTGCTGATCATCGGTGGATTTCGAGGCCTACCTGGGA
CTCCTGGAGCTGTACGCCCGCCGGGAGAAGCACGAGGAGTTCTGTGTCCCATGGTCATGGTTCCCGCTACTGTG
TCCAACAATGTGCCGGGTTCGATTTTCAGCATCGGGGCAGACACCGCCCTGAACACTATCACCGACACCTGCGAC
CGCATCAAGCAGTCCGCCAGCGGAACCAAGCGGCGCTGTTTCATCATCGAGACCATGGGCGGCTACTGTGGCTAC
CTGGCCAACATGGGGGGGCTCGCGGCCGGAGCTGATGCCGCATACATTTTGAAGAGCCCTTCGACATCAGGGAT
CTGCAGTCCAACGTGGAGCACCTGACGGAGAAAATGAAGACCACCATCCAGAGAGGCCTTGTGCTCAGAAATGAG
AGCTGCAGTGAAAATACACCACCGACTTCATTTACCAGCTGTATTGAGAAGAGGGCAAAGGCGTGTGTTGACTGC
AGGAAGAACGTGCTGGGTACATGCAGCAGGTGGGGCACCCCTCTCCATTTGATAGAACTTTGGAACCAAAATC
TCTGCCAGAGCTATGGAGTGGATCACTGCAAACTCAAGGAGGCCCGGGGCAGAGGAAAAAATTTACCACCGAT
GATTCCATTTGTGTGCTGGGAATAAGCAAAAGAAACGTTATTTTCAACCTGTGGCAGAGCTGAAGAAGCAAACG
GATTTTGAGCACAGGATTCCAAAGAACAGTGGTGGCTCAAGCTACGGCCCTCATGAAAATCCTGGCCAAGTAC
AAGGCCAGCTATGACGTGTCGGACTCAGGCCAGCTGGAACATGTGCAGCCCTGGAGTGTCTGACCCAGTCCCGCC
TGCATGTGCTGCAGCCACCGTGGACTGTCTGTTTTGTAACACTTAAGTTATTTATCAGCACTTTATGCACGT
ATTATTGACATTAATACCTAATCGGCGAGTGCCCATCTGCCCCACCAGCTCCAGTGCCTGCTGTCTGTGGAGTGT
GTCTCATGCTTTCAGATGTGCATATGAGCAGAATTAATTAA

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FIGURE 143

MDADDSRAPKGSRLRFLEHLSGAGKAIGVLTSGGDAQGMNAAVRVVRMGIYVGAKVYFIYEGYQGMVDGGSNIA
EADWESVSSILQVGGTIIIGSARCQAFRTREGRLKAACNLLQRGITNLCVIGGDGSLTGANLFRKEWSGLLEELAR
NGQIDKEAVQKYAYLNVVGMVGSIDNDFCGTDMTIGTDSALHRIIEVVDAIMTTAQSHQRTFVLEVMGRHCGYLA
LVSALACGADWVFLPESPPEEGWEEQMCVKLSENRARKRLNIIIVAEGAIDTQNKPIITSEKIKELVVTQLGYDT
RVTILGHVQRGGTPSAFDRILASRMGVEAVIALLEATPDTPACVVSLNGNHAVRLPLMECVQMTQDVQKAMDERR
FQDAVRLRGRSFAGNLNTYKRLAIKLPDDQIPKTCNVAVINVGAPAAGMNAAVRSAVRVGIADGHRMLAIYDGF
DGFAKGQIKEIGWTDVGGWTGQGSILGTRKRVLPKYLEE IATQMRTHSINALLIIGGFEAYLGLELSAAREKH
EEFCVPMVMVPATVSNNVPGSDFSIGADTALNTITDTCRIKQSASGTRRVFIIETMGGYCGYLANMGGLAAGA
DAAYIFEEPFDIRDLQSNVEHLTEKMKTTIQRLVLRNESCSENYTTDFIYQLYSEEGKGVFDCRKNVLGHMQQG
GAPSPFDRNFGTKISARAMEWITAKLKEARGRGKFTTDDSIKVLGISKRNVIQFPAELKKQTD FEHRIPKEQW
WLKLRPLMKILAKYKASYDVSDSGQLEHVQPWSV

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FIGURE 144

CCATTGTGCTCTAAAGGGAAGGTGCTGTGTAATCATTAAAGGAGCGGAGGCTTTTGGAGCTGCTAAATGCGGGAT
TACCTCGGTGCCGATCAGCGGAAGACCAAAGAGGATGAGAAGGACGACAAGCCCATCCGAGCTCTGGATGAGGGG
GATATTGCCTTGTTGAAAACCTTATGGTCAGAGCACTTACTCTAGGCAGATCAAGCAAGTTGAAGATGACATTCAG
CAACTTCTCAAGAAAATTAATGAGCTCACTGGTATTAAAGAATCTGACACTGGCCTGGCCCCACCAGCACTCTGG
GATTTGGCTGCAGATAAGCAGACACTCCAGAGTGAACAGCCTTTACAGGTTGCCAGGTGTACAAAGATAATCAAT
GCTGATTCCGAGGACCCAAAATACATTATCAACGTAAAGCAGTTTGCCAAGTTTGTGGTGGACCTTAGTGATCAG
GTGGCACCTACTGACATTGAAGAAGGGATGAGAGTGGGCGTGGATAGAAATAAATATCAAATTCACATTCCATTG
CCTCCTAAGATTGACCCAACAGTTACCATGATGCAGGTGGAAGAGAAACCTGATGTCACATACAGTGATGTTGGT
GGCTGTAAGGAACAGATTGAGAACTGCGAGAAGTAGTTGAAACCCCATTTCTATCCAGAGAGGTTTGTGAAC
CTTGGCATTGAGCCTCCCAAGGGCGTGCTGCTCTTTGGTCCACCCGGTACAGGCAAGACACTCTGTGCGCGGGCA
GTTGCTAATCGGACTGATGCGTGCTTCATTGAGTTATTGGATCTGAGCTTGACAGAAATACGTCGGTGAGGGG
GCTCGAATGGTTCGTGAACCTTTTGAATGGCCAGAACAAAAAGCCTGCCTTATCTTCTTTGATGAAATTGAT
GCTATTGGAGGGGCTCGTTTTGATGATGGTGCTGGAGGTGACAATGAAGTGCAGAGAACAAATGTTGGAACGATC
AATCAGCTTGATGGTTTTGATCCTCGAGGCAATATTAAAGTGCTGATGGCCACTAACAGACCTGATACTTTGGAT
CCAGCACTGATGAGGCCAGGGAGATTGGATAGAAAAATTGAATTTAGCTTGCCCGATCTAGAGGGTCGGACCCAC
ATATTTAAGATTACGCTCGTTCAATGAGTGTTGAAAGAGATATCAGATTTGAACTGTTAGCACGACTGTGTCCA
AATAGCACTGGTGCTGAGATTAGAAGCGTCTGCACAGAGGCTGGTATGTTTGCCATCAGAGCACGGCGAAAAATT
GCTACCGAGAAGGATTTCTTGGAAGCTGTAAATAAGGTCATTAAGTCTTATGCCAAATTCAGTGCTACTCCTCGT
TACATGACATACAACTGAACCCTGAAGGCTTTCAAGTGAAAACCTTAAATTGGAATCCTAACCTTATATAGACTT
GTTAATAACCAATTCATAAACAAATAAATGGCTTCAACTTTAGAGCACAAATGG

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FIGURE 145

MPDYLGADQRKTKEDKDDKP I RALDEGDIALLKTYGQSTYSRQIKQVEDDIQQLKKINELTGIKESDTGLAPP
ALWDLAADKQTLQSEQPLQVARCTKIINADSEDPKYIINVKQFAKFVVDLSDQVAPTDIEEGMRVGVDNRKYQIH
IPLPPKIDPTVTMMQVEEKPDVTYSQVGGCKEQIEKLREVVETPLLHPERFVNLGIEPPKGVLLFGPPGTGKTLC
ARAVANRTDACFIRVIGSELVQKYVGEARMVRELFEMARTKKACLIFFDEIDAIGGARFDDGAGGDNEVQRTML
ELINQLDGFDPGRNIKVLMTNRPD TLDPALMRPGR LDRKIEFSLPDLEGRTHIFKIHARMSVERDIRFELLAR
LCPNSTGAEIRSVCTEAGMFAIRARRKIATEKDFLEAVNKVIKSYAKFSATPRYMTYN

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FIGURE 146

ATCCGTGTCCTTGCGGTGCTGGGCAGCAGACCGTCCAAACCGACACGCGTGGTATCCTCGCGGTGTCCGGCAAGA
GACTACCAAGACAGACGCTATGACTGAGGCTGATGTGAATCCAAAGGCCTATCCCCTTGCCGATGCCCCACCTCAC
CAAGAAGCTACTGGACCTCGTTCAGCAGTCATGTAATAAGCAGCTTCGGAAAGGAGCCAATGAGGCCACCAA
AACCCTCAACAGGGGCATCTCTGAGTTTCATCGTGATGGCTGCAGACGCCGAGCCACTGGAGATCATTCTGCACCT
GCCGCTGCTGTGTGAAGACAAGAATGTGCCCTACGTGTTTGTGCGCTCCAAGCAGGCCCTGGGGAGAGCCTGTGG
GGTCTCCAGGCCTGTCATCGCCTGTTCTGTCAACATCAAAGAAGGCTCGCAGCTGAAACAGCAGATCCAATCCAT
TCAGCAGTCCATTGAAAGGCTCTTAGTCTAAACCTGTGGCCTCTGCCACGTGCTCCCTGCCAGCTTCCCCCTGA
GGTTGTGTATCATATTATCTGTGTAGCATGTAGTATTTTCAGCTACTCTCTATTGTTATAAAATGTAGTACTAA
ATCTGGTTTCTGGATTTTGTGTGTTTTTGTCTGTTTTACAGGGTTGCTATCCCCCTTCCTTTCTCCCTCCC
TCTGCCATCCTTCATCCTTTTATCCTCCCTTTTGGAAACAAGTGTTCAGAGCAGACAGAAGCAGGGTGGTGGCAC
CGTTGAAAGGCAGAAAGAGCCAGGAGAAAGCTGATGGAGCCAGGACAGAGATCTGGTTCCAGCTTTCAGCCACTA
GCTTCCTGTTGTGTGCGGGGTGTGGTGAATTAAACAGCATTTCATTGTGTGTCCTGTGCCTGGCACACAGAATC
ATTCTACGTGTTCAAGTGATCAAGGGGTTTCATTTGCTCTTGGGGGATTAGGTATCATTGGGGAGGAAGCATG
TGTTCTGTGAGGTTGTTTCGGCTATGTCCAAGTGTGTTTTACTAATGTACCCCTGCTGTTTGCTTTTGGTAATGTG
ATGTTGATGTTCTCCCCCTACCCACAACCATGCCCTTGAGGGTAGCAGGGCAGCAGCATACCAAAGAGATGTGCT
GCAGGACTCCGGAGGCAGCCTGGGTGGGTGAGCCATGGGGCAGTTGACCTGGGTCTTGAAAGAGTCGGGAGTGAC
AAGCTCAGAGAGCATGAACTGATGCTGGCATGAAGGATTCCAGGAAGATCATGGAGACCTGGCTGGTAGCTGTAA
CAGAGATGGTGGAGTCCAAGGAAACAGCCTGTCTCTGGTGAATGGGACTTTCTTTGGTGGACACTTGGCACCAGC
TCTGAGAGCCCTTCCCCTGTGTCCTGCCACCATGTGGGTGAGATGTACTCTCTGTACATGAGGAGAGTGCTAGT
TCATGTGTTCTCCATTCTGTGAGCATCCTAATAAATCTGTTCCATTTTG

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FIGURE 147

MTEADVNP KAYPLAD AHLT KKL D LVQQSCNYKQLRK GANEATKTLNRGISEFIVMAADAEPL EII LHLPLLCED
KNVPYVFVRSKQALGRACGVS RFPVIACSVTIKEGSQLKQOIQSIQQS IERLLV

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FIGURE 148

GCGGCGGCGGCAGCGGCGGCGACGGCGACATGGAGAGCGGGGCCTACGGCGCGGCCAAGGCGGGCGGCTCCTTCG
ACCTGCGGCGCTTCCTGACGCAGCCGCAGGTGGTGGCGCGCGCGTGTGCTTGGTCTTCGCCTTGATCGTGTCT
CCTGCATCTATGGTGAGGGCTACAGCAATGCCACGAGTCTAAGCAGATGTACTGCGTGTTC AACGCAACGAGG
ATGCCTGCCGCTATGGCAGTGCCATCGGGGTGCTGGCCTTCCTGGCCTCGGCCTTCTTCTTGGTGGTCGACGCGT
ATTTCCCCAGATCAGCAACGCCACTGACCGCAAGTACCTGGTCATTGGTGACCTGCTCTTCTCAGCTCTCTGGA
CCTTCCTGTGGTTTGTGGTTTCTGCTTCCTCACCAACCAGTGGGCAGTCACCAACCCGAAGGACGTGCTGGTGG
GGGCGGACTCTGTGAGGGCAGCCATCACCTTCAGCTTCTTTCCATCTTCTCCTGGGGTGTGCTGGCCTCCCTGG
CCTACCAGCGCTACAAGGCTGGCGTGGACGACTTCATCCAGAATTACGTTGACCCCACTCCGGACCCCAACTG
CCTACGCCTCCTACCCAGGTGCATCTGTGGACAAC TACCAACAGCCACCCTTCACCCAGAACGCGGAGACCACCG
AGGGCTACCAGCCGCCCCCTGTGTACTGAGCGGCGGTTAGCGTGGGAAGGGGGACAGAGAGGGCCCTCCCTCTG
CCCTGGACTTTCCCATGAGCCTCCTGGAACTGCCAGCCCTCTCTTTACCTGTTCCATCCTGTGCAGCTGACAC
ACAGCTAAGGAGCCTCATAGCCTGGCGGGGGCTGGCAGAGCCACACCCCAAGTGCCTGTGCCAGAGGGCTTCAG
TCAGCCGCTCACTCCTCCAGGGCATTTTTAGGAAAGGGTTTTCAGCTAGTGTTTTCTCGCTTTTAATGACCTC
AGCCCCGCTGCAGTGGCTAGAAGCCAGCAGGTGCCCATGTGCTACTGACAAGTGCCTCAGCTTCCCCCGGGCC
GGGTCAGGCCGTGGGAGCCGCTATTATCTGCGTTCTCTGCCAAAGACTCGTGGGGGCCATCACACCTGCCCTGTG
CAGCGGAGCCGGACCAGGCTCTTGTGTCCTCACTCAGGTTTGCTTCCCTGTGCCACTGCTGTATGATCTGGGG
GCCACCACCCTGTGCCGGTGGCCTCTGGGCTGCCTCCCGTGGTGTGAGGGCGGGGCTGGTGTCTATGGCACTTCC
TCCTTGCTCCCACCCCTGGCAGCAGGGAAGGGCTTTGCCTGACAACACCCAGCTTTATGTAAATATTCTGCAGTT
GTTACTTAGGAAGCCTGGGGAGGGCAGGGGTGCCCATGGCTCCCAGACTCTGTCTGTGCCGAGTGATTATAAA
ATCGTGGGGGAGATGCCCGCCTGGGATGCTGTTGGAGACGGAATAAATGTTTTCTCATT CAGTA

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FIGURE 149

MESGAYGAAKAGGSFDLRRFLTQPQVVARAVCLVFALIVFSCIYGEGYSNAHESKQMYCVFNRNEDACRYGSAIG
VLAFLASAFFLVVDAYFPQISNATDRKYLVIQDLLFSALWTFWVVGFCFLTNQWAVTNPKDVLVGADSVRAAIT
FSFFSIFSWGVLASLAYQRYKAGVDDFIQNYVDPTDPNTAYASYPGASVDNYQQPFFTQNAETTEGYQPPPVY

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FIGURE 150

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCCTTTGAACGCAGTCGCCCTACAGCCGCTGATTCCCCCGCA
TCGCCTCCCGTGGAAGCCCAGGCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACCATGTCCACCAACGAGAAT
GCTAATACACCAGCTGCCCCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCGTCGCAGA
ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATT
CCTGATGATGCTACTTCTCCGCTGCAGGAAAACCGCAACAACCAGGGCACTGTAAATTGGTCTGTTGATGACATT
GTCAAAGGCATAAATAGCAGCAATGTGGAATCAGCTCCAAGCTACTCAAGCTGCCAGGAACTACTTTCCAGA
GAAAAACAGCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGTCCTTCTTGGGCAGAACT
GATTGTAGTCCATTTCAGTTTGAATCTGCTTGGGCACTACTAACATTGCTTCTGGGACATCAGAACAAACCAAG
GCTGTGGTAGATGGAGGTGCCATCCCAGCATTCTTCTGTTGGCATCTCCCATGCTCACATCAGTGAACAA
GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCGAGACTTGGTTATTAAGTACGGTGCAGTT
GACCCACTGTTGGCTCTCCTTGCACTTCTGATATGTCATCTTTAGCATGTGGCTACTTACGTAATCTTACCTGG
ACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCGATAGATGCTGTTGAGCAGATTCTTCTACCTTA
GTTCCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCTACCTTACTGATGGT
CCAAATGAACGAATTGGCATGGTGGTGAAAACAGGAGTTGTGCCCCAACTTGTAAGCTTCTAGGAGCTTCTGAA
TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG
ATTGATGCAGGAGCACTCGCCGCTTTTCCAGCCTGCTCACCACCCCAAACTAACATTGAGAAGGAAGCTACG
TGGCAATGTCAAACATCACAGCCGGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATT
CTTGTCACTGTTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCACTATAACCACT
GGTGGAACAGTTGAACAGATTGTGTACCTTGTTCAGTGTGGCATAATAGAACCGTTGATGAACCTCTTAACTGCA
AAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAACTAGGTGAA
ACTGAGAACTTAGTATAATGATTGAAGAAATGTGGAGGCTTAGACAAAATTGAAGCTCTACAAAACCATGAAAAT
GAGTCTGTGTATAAGGCTTCGTTAAGCTTAATTGAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTT
GTACCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTTCAGGATGGGGCTCCTGGGACCTTTAACTTTTAGATC
ATGTAGCTGAGACATAAATTTGTTGTGTACTACGTTTGGTATTTGTCTTATTGTTTCTCTACTAAGAACTCTTT
CTTAAATGTGGTTTGTACTGTAGCACTTTTACACTGAACTATACTTGAACAGTTCCAAGTGTACATACATAC
TGTATGAAGCTTGTCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCTATCTTGCAGCATCCTGTAAATAA
ACATTCAAGTCCACCCTTAAAAAAA

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FIGURE 151

MSTNENANTPAARLHRFKNKGKDDSTEMRRRRRIEVNVELRKAKKDDQMLKRRNVSSFPDDATSPLQENRNNQGTVN
WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIIRAGLIPKFVSFLGRITDCSPIQFESAWALTNIASG
TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLALLAVPDMSSLACGY
LRNLTWTLNLNCRNKNPAPPIDAVEQILPTLVRLHDDPEVLADTCWAI SYLTDGPNERIGMVVKTGVVPQLVK
LLGASELPIVTPALRAIGNIVTGTDEQTQVVIDAGALAVFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN
HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGIIEPLMNLLTAKDTKIILVILDAISNIFQA
AEKLGETEKL SIMIEECGGLDKIEALQNHENESVYKASLSLIEKYFSVEEEDQNVVPETTSEGYTFQVQDQDAPG
TFNF

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FIGURE 152

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTCGCCTTCGCCTCCTGAATCCCTAGCCATATGCGTGA
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTGTAGACTTGAACCCACAGTCATTGATGAAGT
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA
TGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCA
GTGCACCCGCTCITCAGGGCTTCTTGGTTTTCCACAGCTTGGTGGGGGAAGTGGTTCTGGGTTACCTCCCTGCT
CATGGAACGCCGTGTCAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCAGGTTTC
CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCCCTGGAGCACTCTGATTGTGCCTTCAT
GGTAGACAATGAGGCCATCTATGACATCTGTGCTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA
CCGCCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTGATGGAGCCCTGAATGTTGACCTGAC
AGAATTCAGACCAACCTGGTCCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTCTCTCTGC
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT
GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT
CAATGTGCCATTGGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT
TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAAGATATGGCTGCCCT
TGAGAAGGATTATGAGGAGGTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACTAATT
ATCCATTCTTTTGGCCCTGCAGCATGTCTGCTCCAGAATTTAGCTTCAGCTTAAGTACAGATGTTAAAGC
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTCCATCATATCTC
AAAGTAAAGTCATTAACATCA

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FIGURE 153

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLSVADITNACFEPAN
QMVKCDPGHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDL MYAKRA FVHWYVGE GMEEGEFSEAREDMAALEKD YEEVGVD SVEGE GEEEGEE
Y

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FIGURE 154A

GGACGCACAGGCATTCCCCGCGCCCCCTCCAGCCCTCGCCGCCCTCGCCACCGCTCCCGGCCGCCGCGCTCCGGTA
CACACAGGATCCCTGCTGGGCACCAACAGCTCCACCATGGGGCTGGCCTGGGGACTAGGCGTCTGTCTCTGATG
CATGTGTGTGGCACCAACCGCATTCCAGAGTCTGGCGGAGACAACAGCGTGTGTTGACATCTTTGAAGTACCCGGG
GCCGCCCGCAAGGGGTCTGGGCGCCGACTGGTGAAGGGCCCCGACCTTCCAGCCCAGCTTTCCGCATCGAGGAT
GCCAACCTGATCCCCCTGTGCCTGATGACAAGTTCGAAGACCTGGTGGATGCTGTGCGGGCAGAAAAGGGTTTC
CTCCTTCTGGCATCCCTGAGGCAGATGAAGAAGACCCGGGGCAGCGTGTGCGCCCTGGAGCGGAAAGACCACTCT
GGCCAGGTCTTCAGCGTGGTGTCCAATGGCAAGGCGGGCACCTGGACCTCAGCCTGACCGTCCAAGGAAAGCAG
CACGTGGTGTCTGTGGAAGAAGCTCTCCTGGCAACCGGCCAGTGAAGAGCATCACCTGTTTGTGCGGAAGAC
AGGGCCCAGCTGTACATCGACTGTGAAAAGATGGAGAATGCTGAGTTGGACGTCCCCATCCAAGCGTCTTCACC
AGAGACCTGGCCAGCATCGCCAGACTCCGCATCGCAAAGGGGGGCGTCAATGACAATTCCAGGGGGTGTCTGCAG
AATGTGAGGTTTGTCTTTGGAACCAACAGAGACATCTCAGGAACAAAGGCTGTCCAGCTCTACCAAGTGTCT
CTCCTCACCTTGACAACAACGTGGTGAATGGTTCCAGCCCTGCCATCCGCACTAATACATTGGCCACAAGACA
AAGGACTTGCAAGCCATCTGCGGCATCTCCTGTGATGAGCTGTCCAGCATGGTCTTGAAGTCAAGGGCCTGCGC
ACCATTGTGACCACGCTGCAGGACAGCATCCGCAAGTGAAGTGAAGAGAACAAGAGTTGGCCAAATGAGTGGAG
CGGCCTCCCCATGCTATCACAACGGAGTTTCACTACAGAAATAACGAGGAATGGACTGTTGATAGCTGCACTGAG
TGTCATGTCTCAGAACTCAGTTACCATCTGCAAAAAGGTGTCTGCCCCATCATGCCCTGCTCCAATGCCACAGTT
CCTGATGGAGAATGCTGTCTCGCTGTGCGCCAGCGACTCTGCGGACGATGGCTGGTCTCCATGGTCCGAGTGG
ACCTCCTGTTCTACGAGCTGTGGCAATGGAATTCAGCAGCGCGGCGCTCCTGCGATAGCCTCAACAACCGATGT
GAGGGCTCCTCGGTCCAGACACGGACCTGCCACATTCAGGAGTGTGACAAAAGATTAAACAGGATGGTGGCTGG
AGCCACTGGTCCCCGTGGTCTCTTGTCTGTGACATGTGGTGTGATGATCACAAGGATCCGGCTCTGCAAC
TCTCCAGCCCCCAGATGAATGGGAAACCTGTGAAGGCGAAGCGCGGGAGACCAAGCCTGCAAGAAAGACGCC
TGCCCCATCAATGGAGGCTGGGGTCTTGGTCACCATGGGACATCTGTTCTGTACCTGTGGAGGAGGGGTACAG
AAACGTAGTCGTCTCTGCAACAACCCCGCACCCAGTTTGGAGGCAAGGACTGCGTTGGTGTGTAACAGAAAAC
CAGATCTGCAACAAGCAGGACTGTCCAATTGATGGATGCTGTCCAATCCCTGCTTTGCCGGCGTGAAGTGTACT
AGCTACCCCTGATGGCAGCTGGAAATGTGGTGTCTGTCCCCCTGGTTACAGTGGAAATGGCATCCAGTGCACAGAT
GTTGATGAGTGCAAAGAAGTGCCTGATGCTGCTTCAACCACAATGGAGAGCACCGGTGTGAGAACACGGACCCC
GGCTACAATGCCTGCCCTGCCCCCACGCTTACCCGGCTCAGACCCCTTCGGCCAGGGTGTGCAACATGCCACG
GCCAACAAACAGGTGTGCAAGCCCCGTAACCCCTGCACGGATGGGACCCACGACTGCAACAAGAAGCCCAAGTGC
AACTACCTGGGCCACTATAGCGACCCCATGTACCGCTGCGAGTGAAGCCTGGCTACGCTGGCAATGGCATCATC
TGCGGGGAGGACACAGACCTGGATGGCTGGCCCAATGAGAACCTGGTGTGCGTGGCCAATGCGACTTACCACTGC
AAAAAGGATAATTGCCCAACCTTCCCAACTCAGGGCAGGAAGACTATGACAAGGATGGAATTGGTGTGCTGT
GATGATGACGATGACAATGATAAAATTCCAGATGACAGGGACAAGTGTCCATTCCATTACAACCCAGCTCAGTAT
GACTATGACAGAGATGATGTGGGAGACCGCTGTGACAACCTGTCCCTACAACCACAACCCAGATCAGGCAGACACA
GACAACAATGGGAAGGAGACGCTGTGCTGCAGACATTGATGGAGACGGTATCCTCAATGAACGGGACAAGTGC
CAGTACGTCTACAATGTGGACCAGAGAGACACTGATATGGATGGGGTGGAGATCAGTGTGACAATTGCCCCCTG
GAACACAATCCGGATCAGCTGGACTCTGACTCAGACCGCATTTGGAGATACCTGTGACAACAATCAGGATATTGAT
GAAGATGGCCACCAGAACAATCTGGACAACCTGTCCCTATGTGCCCAATGCCAACCAGGCTGACCATGACAAAGAT
GGCAAGGGAGATGCCTGTGACCACGATGATGACAACGATGGCATTCTGTGATGACAAGGACAAGTGCAGACTCGTG
CCCAATCCCGACCAGAAGGACTCTGACGGCGATGGTGGAGGTGATGCCTGCAAGATGATTTTGACCATGACAGT
GTGCCAGACATCGATGACATCTGTCTGAGAAATGTTGACATCAGTGAGACCGATTTCGCCGATTCCAGATGATT
CCTCTGGACCCCAAGGGACATCCCAAAATGACCCTAAGTGGTGTACGCCATCAGGGTAAAGAACTCGTCCAG
ACTGTCAACTGTGATCCTGGACTCGCTGTAGGTTATGATGAGTTAATGCTGTGGACTTCAGTGGCACCTTCTTC
ATCAACACCGAAAGGGACGATGACTATGCTGGATTGTCTTTGGCTACCAGTCCAGCAGCCGCTTTTATGTTGTG
ATGTGGAAGCAAGTCAACCACTGCTTACTGGGACCAACCCACGAGGGCTCAGGGATACTCGGGCCTTTCTGTG
AAAGTTGTAACTCCACCACAGGGCCTGGCGAGCACCTGCGGAACGCCCTGTGGCACACAGGAAACACCCCTGGC
CAGGTGCGCACCCCTGTGGCATGACCCTCGTCACATAGGCTGGAAGATTTACCCGCTACAGATGGCGTCTCAGC
CACAGGCCAAAGACGGGTTTCATTAGAGTGGTGTATGAAGGAAGAAAATCATGGCTGACTCAGGACCCATC
TATGATAAAACCTATGCTGGTGGTAGACTAGGTTGTTTGTCTCTCTCAAGAAATGGTGTCTCTCTGACCTG

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FIGURE 154B

AAATACGAATGTAGAGATCCCTTAATCATCAAATTGTTGATTGAAAGACTGATCATAAACCAATGCTGGTATTGCA
CCTTCTGGAACATATGGGCTTGAGAAAACCCCCAGGATCACTTCTCCTTGGCTTCTTCTTTTCTGTGCTTGCATC
AGTGTGGACTCCTAGAACGTGCGACCTGCCTCAAGAAAATGCAGTTTTCAAAAACAGACTCATCAGCATTACAGCC
TCCAATGAATAAGACATCTTCCAAGCATATAAACAAATTGCTTTGGTTTTCTTTTGAAAAAGCATCTACTTGCTTC
AGTTGGGAAGGTGCCATTCCACTCTGCCTTTGTACAGAGCAGGGTGCTATTGTGAGGCCATCTCTGAGCAGTG
GACTCAAAGCATTTTCAGGCATGTGAGAGAAGGGAGGACTCACTAGAATTAGCAAACAAAACCACCCTGACATC
CTCCTTCAGGAACACGGGGAGCAGAGGCCAAAGCACTAAGGGGAGGGCGCATACCCGAGACGATTGTATGAAGAA
AATATGGAGGAACGTGTACATGTTTCGGTACTAAGTCATTTTCAGGGGATTGAAAGACTATTGCTGGATTTTCATGA
TGCTGACTGGCGTTAGCTGATTAACCCATGTAAATAGGCACCTTAAATAGAAGCAGGAAAGGGAGACAAAGACTGG
CTTCTGGACTTCTCCTCGATCCCCACCCTTACTCATCACCTTGCACTGGCCAGAATTAGGGAATCAGAATCAA
CCAGTGTAAAGGCAGTGGCTGCCATTGCCTGGTCACATTGAAATTGGTGGCTTCATTCTAGATGTAGCTTGTG
CAGATGTAGCAGGAAAAATAGGAAAACCTACCATCTCAGTGAGCACCAGCTGCCTCCCAAAGGAGGGGCAGCCGTG
CTTATATTTTTATGTTTACAATGGCACAAAATTATTATCAACCTAACTAAAACATTCTTTTTCTTTTTTCCGT
AATTACTAGGTAGTTTTCTAATTCTCTCTTTTGAAGTATGATTTTTTTAAAGTCTTTACGATGTAAAATATTTA
TTTTTTACTTATTCTGGAAGATCTGGCTGAAGGATTATTTCATGGAACAGGAAGAAGCGTAAAGACTATCCATGTC
ATCTTTGTTGAGAGTCTTCGTGACTGTAAGATTGTAAATACAGATTATTTATTAACCTCTGTTCTGCCTGGAAAT
TAGGCTTCATACGGAAGTGTTTGAGAGCAAGTAGTTGACATTTATCAGCAAATCTCTTGCAAGAACAGCACAAAG
GAAATCAGTCTAATAAGCTGCTCTGCCCCCTTGCTCAGAGTGGAATGTTATGGGATTCTTTTTTCTCTGTTTT
ATCTTTTCAAGTGGAATTAGTTGGTTATCCATTTGCAAATGTTTTAAATTGCAAAGAAAGCCATGAGGTCTTCAA
TACTGTTTTACCCCATCCCTTGTGCATATTTCCAGGGAGAAGGAAAGCATATACACTTTTTTCTTTTCATTTTTCC
AAAAGAGAAAAAATGACAAAAGGTGAAACTTACATACAAATATTACCTCATTGTTGTGTGACTGAGTAAAGAA
TTTTTGATCAAGCGGAAAGAGTTTAAAGTGTCTAACAACTTAAAGCTACTGTAGTACCTAAAAAGTCAGTGTTG
TACATAGCATAAAACTCTGCAGAGAAGTATTCCCAATAAGGAAATAGCATTGAAATGTTAAATACAATTTCTGA
AAGTTATGTTTTTTTTCTATCATCTGGTATACCATTGCTTTATTTTTATAAATTATTTCTCATTGCCATTGGAA
TAGAATATTCAGATTGTGTAGATATGCTATTTAAATAATTTATCAGGAAATACTGCCTGTAGAGTTAGTATTTCT
ATTTTTATATAATGTTTGCACTGAATTGAAGAATTGTTGGTTTTTCTTTTTTTTGTTTTTTTTTTTTTTTTT
TTTTTTTTGCTTTTGACCTCCCATTTTTACTATTTGCCAATACCTTTTTCTAGGAATGTGCTTTTTTTTTGTACA
CATTTTTATCCATTTTACATTCTAAAGCAGTGTAAGTTGTATATTACTGTTTCTTATGTACAAGGAACAACAATA
AATCATATGGAAATTTATATT

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FIGURE 155

MGLAWGLGVLFMLHVCCTNRIPESGGDNSVFDIFELTGAARKGSGRRLVKGPDPSAPFRIEDANLIPPVPDDKF
QDLVDAVRAEKGFLLLASLRQMKKTRGILLALERKDHSGQVFSVVSNGKAGTLDLSLTVQCKQHVSVEEALLAT
GQWKSITLQEDRAQLYIDCEKMENAELDVPIQSVFTRDLASIALRLIAKGGVNDNFQGVQLQNVRFVFGTTPED
ILRNKGCSSSTSVLLTLDNNVVGSSPAIRTNVYIGHKTKDLQAICGISCELSMVLELRGLRTIVTTLQDSIRK
VTEENKELANELRRPPLCYHNGVQYRNNEEWTVDSCTECHCQNSVTICKKVSCPIMPSCNATVPDGECCPRCWPS
DSADDGWSPWSEWTSCSTSCGNGIQQRGRSCDSLNNRCEGSSVQTRTCHIQECDKRFQDGGWSHWSPWSSCSVT
CGDGVITRIRLCNSPSPQMNGKPCGEARETKACKKDACPINGGWGPWSPWDICSVTCGGGVQKRSRLCNPAPQ
FGGKDCVGDVTENQICNKQDCPIDGCLSNPCFAGVKCTSYPDGSKWCGACPPGYSGNGIQCTDVDECKEVPDACF
NHNGEHRCENTDPGYNCLPCPPRFTGSQPFQGVGHATANKQVCKPRNPCTDGTDCNKNACNYLGHYSDPMYR
CECKPGYAGNGIICGEDTDLDGWPENENLVCVANATYHCKKDNCPNLPNSGQEDYDKDIGDACDDDDNDKIPDD
RDNCPFHYNPAQYDYDRDDVGDRCDNCPYNHNPQADTDNNGEGDACAADIDGDGILNERDNCQYVYNVDQRD
MDGVGDQCDNCPLEHNPDQLDSDSDRIGDTCDDNQDIDEDGHQNNLDNCPYVPNANQADHDKDGKGDACDHDDN
DGIPDDKDNCRVFNPDQKDSGDGRGDACKDDFDHDSVPDIDDICPENVDISETDFRREFQMIPLDPKGTSONDP
NWVVRHQGKELVQTVNCDPGLAVGYDEFNAVDFSGTFFINTERDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDT
NPTRAQGYSGLSVKVNSTTGPGEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFI RVVM
YEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDP

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FIGURE 156

GGCACGAGGGCGGCGGCGGCGGTAGAGGCGGCGGCGGCGGCGGCGGCTCGGAGGCAGCGGTTGGGCTCGCG
GCGAGCGGACGGGGTCGAGTCAGTGCCTTCGCGCGAGTTGGAATCGAAGCCTCTTAAATGGCAGATGACTTGGA
CTTCGAGACAGGAGATGCAGGGGCTCAGCCACCTTCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGT
GGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGATGTCTACTTCGAAGACTGGCAAGCACGGCCACGCCAAGGT
CCATCTGTTGGTATTGACATCTTTACTGGGAAGAAATATGAAGATATCTGCCCGTCAACTCATAATATGGATGT
CCCCAACATCAAAAGGAATGACTTCCAGCTGATTGGCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGG
GGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAGACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGA
AGAGATCCTGATCACGGTGCTGTCTGCCATGACAGAGGAGGCAGCTGTGCAATCAAGGCCATGGCAAAATAACT
GGCTCCCAGGATGGCGGTGGTGGCAGCAGTGATCCTCTGAACCTGCAGAGGCCCCCTCCCCGAGCCTGGCCTGGC
TCGGCCCCGGTCCTAAGCTGGACTCCTCCTACACAATTTATTTGACGTTTTATTTTGGTTTTCCCCACCCCTCA
ATCTGTCGGGGAGCCCCCTGCCCTTCACCTAGCTCCCTTGGCCAGGAGCGAGCGAAGCTGTGGCCTTGGTGAAGCT
GCCCTCCTCTTCTCCCCCTCACACTACAGCCCTGGTGGGGGAGAAGGGGGTGGGTGCTGCTTGTGGTTTAGTCTTT
TTTTTTTTTTTTTTTTTTTTTAAATCAATCTGGAATCAGAAAGCGGTGGATTCTGGCAAATGGTCCTTGTGC
CCTCCCCACTCATCCCTGGTCTGGTCCCCTGTTGCCCATAGCCCTTTACCCTGAGCACCACCCCAACAGACTGGG
GACCAGCCCCCTCGCCTGCCTGTGTCTCTCCCCAAACCCCTTTAGATGGGGAGGGAAGAGGAGGAGAGGGGAGGG
GACCTGCCCCCTCCTCAGGCATCTGGGAGGGCCCTGCCCCATGGGCTTTACCCTTCCCTGCGGGCTCTCTCCCC
GACACATTTGTTAAATCAAACCTGAATAAACTACAAGTTAATATGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 157

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS
THNMDVPNIKRNDLFQLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEAATAIK
AMAK

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FIGURE 158

AGCGAGTCCTTCTTTTCTGACTGCAGCTCTTTTCATTTTGCCATCCTTCTCCAGCTCCATGATGGTTCTGCAGG
TTTCTGCGGCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTGCTCACATCTGTGGTCCAGGGCAGGG
CCACTCCAGAGAATTACGTGTACCAGGGACGGCAGGAATGCTACGCGTTTAATGGGACACAGCGCTTCTGGAGA
GATACATCTACAACCGGGAGGAGTACGCGCGCTTCGACAGCGACGTGGGGGAGTTCCGGCGGGTGACGGAGCTGG
GGCGGCTGCTGCGGAGTACTGGAACAGCCAGAAGGACATCCTGGAGGAGAAGCGGGCAGTGCCGGACAGGGTAT
GCAGACACAACCTACGAGCTGGACGAGGCGGTGACCTGCAGCGCCGAGTCCAGCCTAAGGTGAACGTTTCCCCCT
CCAAGAAGGGGCCCCCTGCAGCACCACAACCTGCTTGCTGCCACGTGACAGATTTCTACCAGGCAGCATTCAAG
TCCGATGGTTCTGAATGGACAGGAGGAAACAGCTGGGGTTCGTGTCCACCAACCTGATCCGTAATGGAGACTGGA
CCTTCCAGATCCTGGTGATGTGGAAATGACCCCCCAGCAGGGAGACGTCTACATCTGCCAAGTGAGCACACCA
GCCTGGACAGTCTGTACCCGTGGAGTGGAAGGCACAGTCTGATTCTGCCCAGAGTAAGACATTGACGGGAGCTG
GGGGCTTCGTGCTGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAG
GATCTGCATAAACAGGGTTCTTGACCTACCCGAAAAGACTAATGTGCCTTAGAACAAGCATTGTCTGTGTTTGT
TAACACCTGGTTCCAGGACAGACCCTCAGCTTCCCAAGAGGATACTGCTGCCAAGAAGTTGCTCTGAAGTCAGTT
TCTATCGTTCTGCTCTTTGATTCAAAGCACTGTTTCTCTCACTGGGCCTCCAACCATGTTCCCTTCTTTAGCA
CCACAAATAATCAAAACCCAAACATAAGTGTGTTTCTTTAAAAATATGCATCAAATCGTCTCTCATTACTTT
TCTCTGAGGGTTTTAGTAAACAGTAGGAGTTAATAAAGAAGTTTCAATTTGGTTTACACGTAGGAAAGAAGAGAAG
CATCAAAGTGGAGATATGTTAACTATTGTATAATGTGGCCTGTTATACATGACACTCTTCTGAATTGACTGTATT
TCAGTGAGCTGCCCCCAATCAAGTTTGTGCCCTCATCCATTATGTCTCAGACCGCTATTCTTAACTATTCAA
TGGTGAGCAGACTGCAAATCTGCCTGATAGGACCCATATCCCACAGCACTAATTCAACATATATCTTACTGAGA
GCATGTTTTATCATTACCATTAAAGAAGTTAAATGAACATCAGAATTTAAATCATAAATATAATCTAATACACTT
T

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FIGURE 159

MMVLQVSAAPRTVALTALLMVLLTSVVQGRATPENYVYQGRQECYAFNGTQRFLERYIYNREEYARFDSQDVGEFR
AVTELGRPAAEYWNSQKDILEEKRAVPDRVCRHNYELDEAVTLQRRVQPKVNVSPSKKGPLQHHNLLVCHVTDFY
PGSIQVRWFLNGQEETAGVVSTNLIRNGDWTQILVMLEMTQQGDVYICQVEHTSLDSPVTVEWKAQSDSAQSK
TLTGAGGFVLGLIICGVGIFMHRRSKKVQRGSA

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FIGURE 160

GGCACGAGGGGCGGCCGGTGAGGGGGAAGCAAGTCTGGTCTCTGTGATTGAAGAAGTCGGCTCTGGGCTCCAGTG
CGGGAATCACACACATACCTCAGAATGCGGGTCTAAGTTGTAGATTTTATCAACACAAATTTCTGAGGTGGAA
GATGTAGTGTGTTGAATGTCAGATCCATTGCTGAAATGGGGGCTTATGTCAGCTTGCTGGAATACAACAACATT
GAAGGCATGATTCTTCTTAGTGAATTATCCAGAAGCGTATCCGTTCTATCAACAACTCATCCGAATTGGCAGG
AATGAGTGTGTGGTTGTCTAGGGTGGACAAAGAAAAGGATATATTGATTTGTCAAAAAGAAGAGTTTCTCCA
GAGGAAGCAATCAAATGTGAAGACAAATTCACAAATCCAAACTGTTTATAGCATTCTTCGTCATGTTGCTGAG
GTGTTAGAATACACCAAGGATGAGCAGCTGGAAAGCCTATTCCAGAGGACTGCCTGGGTCTTTGATGACAAGTAC
AAGAGACCTGGATATGGTGCCTATGATGCATTTAAGCATGCAGTCTCAGACCCATCTATTTTGGATAGTTTAGAT
TTGAATGAAGATGAACGGGAAGTACTCATTAAATAATTAATAGGCGCTTGACCCACAGGCTGTCAAAATTCGA
GCAGATATTGAAGTGGCTTGTATGGTTATGAAGCATTGATGCTGTAAGAAGCCCTAAGAGCAGGTTTGAAT
TGTTCTACAGAAAACATGCCATTAAAGATTAATCTAATAGCTCCTCCTCGGTATGTAATGACTACGACAACCCTG
GAGAGAACAGAAGGCCTTTCTGTCTCAGTCAAGCTATGGCTGTTATCAAGAGAAGATTGAGGAAAAGAGGGGT
GTGTTCAATGTTCAAATGGAGCCCAAAGTGGTACAGATACAGATGAGACTGAACTTGCGAGGCAGATGGAGAGG
CTTGAAAGAGAAAATGCCGAAGTGGATGGAGATGATGATGCAGAAGAAATGGAAGCCAAAGCTGAAGATTAACTT
TGTGGGAAACAGAGTCCAATTTAAGGAACACAGAGCAGCGCTTCTGGCTGTAAATCCTAGACTTGAAAGTTTTT
CAGTATTGAAAACCTCAAAGCTGAATATTTTTTATTTCTAAGTATTTAAATGTTCTAACAGATCAGAATGAAA
TGCCCTCCTAAATGTCAGCTGTTGTACACAGTAGCTCCAACACTTTGAGCATTTTTTAAGGGAGTGGCCTCATT
CCTAGAGACAAATCTTTAAGAATAGTTCTAAAATTGGGCTTGTGATTCCATTTCTGATGTCTCCAGATTGGCA
CCCCTTTCTAGTTCAATGCCTCACGAGATTTGCCAGGGGCATCCAAGGCAACAATCCCAATCTTTCTATATAAA
ATGATTTCAGCAACATCAAATAAATTTCTGGGATATTAACTATAGGCTTCTTCTTCTGTACCAGTTAAA
AGCATTTTAATACTAAGACCCTAATCTTTTATCTTTATTTTAGTCTTGATGTGGAAGTGTAGGAGCAGGTGAAT
AAAGGATCTCTATAACAGATCCTTTCAAAGAAGAGTTTATAGAAAATAAATTTAACTTTAACACAGTGAAG
TTGACCCTTAGCGGGACAAAGCCTTAAATGCATTGAAAGAATTAGATCGGTTCTGTGCCTTTTATCTATTTGAG
ATTGATGACAACCTGTGTGAGAGAATTTATCACACCAGTCCTTATTGGAATAATAAGCTACTTGCCCTTGAGTTT
ATAATTGAGGGTGGTAAAGTATGTTTTTAAATTTTAAAGCAGCTGCATTTTTTATTTAGTTGGAATATCACC
AATTTTTTATTTTTATTGCTATTAAATATCCACTAGATGCCACCTAGAGCTCCAGTCTTTTATAACAAAACAGG
GATCTGTTTGAACACTTACTGTTGTTTTTTTTTTTTTACATGTTTCCATCATTCTGTCTTTAAGAACTAATTCG
TACATAATAAGTTTCATAGGTAACACATTATATTCTCTTATGATACTTGAGGTACCAGTTGTATTTAATTTTATT
CATTATCCCTAGATAGCTATTAAGATACTTAGATTAGACCTAACCCACCATAGTCAATCCAAGACTAGACTACTC
AATATTAAAGGGTCTGGAAAATAGAAGAGTGTGTTGGGCAGGTAGTTTGTACCATTTATGAAGGTTTGTTCCTT
GTTAAATTTAGCAGCCTGTACTAGCTTTTGAAATCCAGAAGTTTAACTTCCAGTGGCTGGTTTCTGAGAGAGTG
CCATGATTGCTAGCCAGCATTCCATATTGGGAATATGTAGAGGAGAACCTGGATGTACTTAAGAGTGGCATATAA
TTTTCACTTCTGTCTGTTGAGGCAAAAAAAAAAAGTTTAAAGCTGGCAACATGAAGAATGCATTCAAATA
TAACAGGTGCTTCTTTGTTGTACGCAGAGGAATTTTTCTTTTGATTTTGTGTTACTGAAATTTGTATACTTCAA
AAGCCATAACTTGAAAATACTGGTGGCGTCGATGGTGAGTGATTTTATCCACGTGGGCCTTTTGCTCAGTTC
CATGGCAATTTTGTAATTTGACCCTAGCCAGAGAATAGATCAGTATTTCACTGATACCACGAGGAAAAGAACAA
CAAACTTAAAGTATTCATACCTTGCTAACCTAAAAGACAGCAGGGACAAGATACATATGAGGACAAGGTAT
ACACCCAGTTCTGAATAACTTGAAAGACAGGCTTGGCAAAGAAGTAAGTTTATCCAAATCTTGAAATTTCTGCCAG
GCATGGTAGCTCATGCCTGTAAACCCTGGCACTTAAGGGGCCAAGGCAGGAGGATCACTTGAGGCCAGTGAGCTGT
GATCACTCCAGTGCCTCGAGCCTGGGTGACAGGGCAAGACCCTGTCTCAAAAAAAAAAAAAAAAAA

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FIGURE 161

MPGLSCRFYQHKFPEVEDVVMVNVRSIAEMGAYVSLLEYNNIEGMILLSELSRRRIRSINKLIRIGRNECVVVIR
VDKEKGYIDLKRRVSPEEAIKCEDKFTKSKTVYSILRHVAEVLEYTKDEQLES LFQRTAWVFDDKYKRPYGAY
DAFKHAVSDPSILDSLNLNEDEREVLINNINRRLTPQAVKIRADIEVACYGYEGIDAVKEALRAGLNCSTENMPI
KINLIAPPRYVMTTTLERTEGLSVLSQAMAVIKEKIEEKRGVFNVMPEPKVVTDTDETALARQMERLERENAEV
DGDDDAEEMEAKAED

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FIGURE 162

AGGTCCGGCTTACCGTCGTTTACGACAGTGTACAGGATCGCGGGCTTGCTTTCGGTAGCGTGGGCTGACGCCTCG
CTCAATTTCTCACAGGGCTGCGCAGGTTTCCCCCGTCTGCGAATGGACCACTGGAGGGGTTCAAAGGTTTCGCGTC
CCAGTACGGGAATGAGCCTCTTTGATCTCTTCCGGGGCTTTTTCGGCTTTCCTGGACCTCGGAGCCACAGAGATC
CCTTTTTTGGAGGGATGACTCGAGATGAAGATGATGATGAGGAAGAAGAAGAAGAAGGGGGCTCATGGGGCCGTG
GGAACCCAAGGTTCCATAGTCCTCAGCACCCCCCTGAGGAATTTGGCTTCGGCTTCAGCTTCAGCCCAGGAGGAG
GGATACGTTTCCACGATAACTTCGGCTTTGATGACCTAGTACGAGATTCAATAGCATCTTCAGCGATATGGGGG
CCTGGACCTTGCCCTCCCATCCTCCTGAACTTCCAGGTCCTGAGTCAGAGACACCTGGTGAGAGACTACGGGAGG
GACAGACACTTCGGGACTCAATGCTTAAGTATCCAGATAGTCACCAGCCCAGGATCTTTGGGGGGGTCTTGGAGA
GTGATGCAAGAAGTGAATCCCCCAACCAGCACCAGACTGGGGCTCCCAGAGGCCATTTTCATAGGTTTGATGATG
TATGGCCTATGGACCCCCATCCTAGAACCAGAGAGGACAATGATCTTGATTCCCAGGTTTCCCAGGAGGGTCTTG
GCCCCGTTCTACAGCCCCAGCCCAAATCCTATTTCAAGAGCATCTCTGTGACCAAGATCACTAAACCAGATGGGA
TAGTGGAGGAGCGCCGGACTGTGGTGGACAGTGAGGGCCGGACAGAGACTACAGTAACCCGACACGAAGCAGATA
GCAGTCCTAGGGGTGATCCAGAATCACCAAGACCTCCAGCCCTGGATGATGCCTTTTCCATCCTGGACTTATTC
TGGGACGTTGGTTCCGGTCCCGGTAGCCTTGTTAACCCTCAGAGGCCTTCAAGTCCTTTCCACCTCTCACCATT
GCCACCATTAATAAGCTTAGCTTCTCTTGCCACCTCAGGGGCTTGATATGTGGAATAGTGAAGTGGGGCCATG
TCAGTTTGTCACTACCCAAACTGACCAATAAACCTTTATTTATGCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 163

MSLFDLFRGFFGFFGPRSHRDPFFGGMTRDEDDDEEEEEEGGSWGRGNPRFHSPQHPPPEFGFGFSFSPGGGIRF
HDNFGFDDLVRDFNSIFSMDGAWTLPSHPPPELPGPESETPGERLREGQTLRDSMLKYPDSHQPRIFGGVLESAR
SESPQPAPDWGSQRPFHRFDDVWPMDPHPRTREDNDLDSQVSQEGLGVLQPQPKSYFKSISVTKITKPDGIVEE
RRTVVVDEGRTEETTTRHEADSSPRGDPESPRPPALDDAFSILDLFLGRWFRSR

[illegible]

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FIGURE 165

MERIPSAQPPFACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQKIIALQSGLQAGELSGRNVETGQEMFCSGFQTCA
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKPKSSPAKGSEGPGKNCVPVIQR
TFAHSSGEQSGSDTDTDSGYGGESEKGLRSEQCFKSDHGRRFTMGERIGAIIKQEESEPPTKKNRMQLSDDEGH
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVFVLYPGLNASAAALSSFMNPDKISAPL
LMPQRLPSPLPAHPSVDSSVLLQALKPIPLNLETKD

GTCTTTTACAGCGTGTCTTCGTGTGGTGCCTTTTACGTGCTATAAAGTGTCTGTACAGCGCTGAACGTGCTA
CAGCGTGAAGAGCGCCACCCGGGTCCAGGATGCTTTTGCCGCGGCCAAGCTCCTGGCCCTGGCCCTGATCATCCT
GCTGGGCTTTCGTCCAGATCGGGAAGGGTGATGTGTCCAATCTAGATCCCAAGTTCTCATTTGAAGGCACCAAAC
GGATGTGGGGAACATTGTGCTGGCATTATACAGCGGCCTCTTTGGCTATGGAGGATGGAATTACTTGAATTTTCGT
CACAGAGGAATGATCAACCCCTACAGAAACCTGCCCCCTGGCCATCATCATCTCCCTGCCCATCGTGACGCTGGT
GTACGTGCTGACCAACCTGGECTACTTCACCACCTGTCCACCAGCAGATGTGTGCTCCGAGGCCGTGGCCGT
GGACTTCGGGAACATACCTGGGCGTCATGTCTGGATCATCCCCGTCTTCGTGGGCCTGTCTGCTTTGGCTC
CGTCAATGGGTCCCTGTTTACATCCTCCAGGCTCTTCTTCGTGGGGTCCGGGAAGGCCACCTGCCCTCCATCCT
CTCCATGATCCACCCACAGCTCCTCACCCCCGTGCCGTCCCTCGTGTTACGTGTGTGATGACGCTGCTCTACGC
CTTCTCCAAGGACATCTTCTCCGTCATCAACTTCTTCAGTCTCTTCAACTGGCTCTGCGTGGCCCTGGCCATCAT
CGGCATGATCTGGCTGCGCCACAGAAAGCCTGAGCTTGAGCGGCCCATCAAGGTGAACCTGGCCCTGCCTGTGT
CTTCATCCTGGCCCTGCCTCTTCTGATCGCCGTCTCCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCAC
CATCATCCTCAGCGGGCTGCCCGTCTACTTCTTCGGGGTCTGGTGGAAAAACAAGCCCAAGTGGCTCCTCCAGGG
CATCTTCTCCACGACCGTCTGTGTGAGAAGCTCATGCAGGTGGTCCCCCAGGAGACATAGCCAGGAGGCCGAGT
GGCTGCCGGAGGAGCATGCGCAGAGGCCAGTTAAAGTAGATCACCTCCTCGAACCCTACTCCGGTCCCCGCAACC
CACAGCTCAGCTGCCCATCCAGTCTCGCCGTCCCTCCAGGTGCGGCAGTGGAGGCTGCTGTGAAACTCTGG
TACGAATCTCATCCCTCAACTGAGGGCCAGGGACCCAGGTGTGCCTGTGCTCCTGCCCAGGAGCAGCTTTGGTC
TCCTTGGGCCCTTTTTCCCTTCCCTCCTTTGTTTACTTATATATATATTTTTTTTAAACTTAAATTTTGGGTCAA
CTTGACACCACTAAGATGATTTTTTAAAGGAGCTGGGGGAAGGCAGGAGCCTTCCCTTCTCCTGCCCCAAGGGCCC
AGACCTGGGCAACAGAGCTACTGAGACTTGAACCTCATTGCTACCACAGACTTGCCTGAAGCCAGACAGCT
GCCCAGACACATGGGCTTGTGACATTCTGAAACCAACCTGTGGGTATATGTCTCTGCCTTAGGGTTTGAGA
GTGAAACTCAGCCGTAGGGTGGCAGTGGGAGGGGGTGGGGGATCTGGGCAAGGTGGGTGATTCTCCAGGAGG
TGCTTGAGCCCCGATGGACTCCTGACCATATCTAGCCCCGAGACACCATCCTGAGCCAGGGAACAGCCCCAG
GGTTGGGGGGTGCCGGCATCTCCCTTAGCTCACCAGGCCTGGCCTCTGGGCAGTGTGGCCTCTTGCTATTCTG
TTCCAGTTTTGGAGGCTGAGTTCTGGTTTATGCAGACAAAGCCCTGTCTTTCAGTCTTCTAGAAACAGAGACAAG
AAAGGCAGACACACCGCGGCCAGGCACCCATGTGGGCGCCACCCCTGGGCTCCACACAGCAGTGTCCCTGCCCC
AGAGGTGCGAGCTACCTCAGCCTCCAATGCATTGGCCTCTGTACCGCCCGGCAGCCCCCTTCTGGCCGGTGTCTG
GTTCCCACTCCCGGCCCTAGGCACCTCCCCGCTCTCCCTGTACGCTCATGTCTGTCTGTGCTGATGCCCGTT
GTCTAGGAGACAGAGCCAAGCACTGCTACGTCTCTGCCGCTGCGTTTGGAGGGCCCTGGGCTCTCACCAGTC
CCCACCCGCTGCGAGAGAGGGAAGTGGGCACCCCTTGTCTGTGTGTTCCCGTGAATTTTTTTCGCTATGGGAG
GCAGCCGAGGCTGGCCAATGCGGCCCACTTTCCTGAGCTGTGCTGCTCCATGGCAGCAGCAAGGACCCCA
GAACAAGAAGACCCCCCGCAGGATCCCTCCTGAGCTCGGGGGGCTCTGCCTTCTCAGGCCCGGGCTTCCCTT
TCCCCAGCCAGAGGTGGAGCCAAGTGGTCCAGCGTCACTCCAGTGTCTCAGTGTGGCTGGAGGAGGCTGGCTGTG
GCACAGCCCTGAGTGTCCCAAGCCGGGAGCCAACGAAGCCGGACACGGCTTCACTGACCAAGCGCTGTCTAAGCC
GCAAGCTCTCAGCAAGTGCCAGTGGAGCTGCCGCCCCACCTGGGCACCGGACCCCTCACCATCCAGTGG
CCCGGAGAAACCTGATGAACAGTTTGGGAGCTCAGGACAGATGCCGTCTCTTGTCTTGTGAGGAATGAAGACCT
TTATTCACCCCTGCCCCGTTGCTTCCCGCTGCACATGGACAGACTTCACAGCGTCTGCTCATAGGACCTGCATCC
TTCTTGGGAGCAATTCACCTGCTCCAAGGACACGCCACGGTCTGGAGGCCGAGGACCACCAGCAGGCAGGTGG
ACTGACTGTGTGGGCAAGACCTTTCCTCTGGGCCTGTTCTCTTGGCTGCAAATAAGGACAGCAGCTGGTGGC
CCACCTGCCTGTTGATTTGCTGTGTGAATCCAGGAGGCAGTGGACATCGTAGGCAGCCACGGCCCCAGGTCCAGG
AGAAGTGCTCCCTGGAGGCACGGACCACTGCTTCCCACTGGGGCCGGCGGGGCCACGCACAGCTCAGCCTCTT
ACCTTCCCGCCTCGCTAGGGGTCTCGGGATGCCGTTCTGTTTCAACCTCCTGTTCTGGGAGGTGGACATGCCT
CAAGGATACAGGGAGCCGGCGGCCCTCTCGACGGCACGCACTTCTGTGTGGCTGTGCGGCTGTGGGCGAGCATGG
GGGCTGCCAGCGTCTGTTGTGGAAGTAGCTGCTAGTGAAATGGCTGGGGCCGCTGGGGTCCGCTTTCACACTGC
GCAGGTCTCTTCTGGCGCTGTGAGCTGGGGTGGGAGCTCCTCCGAGAAAGGTTGGTGGGGGGTCCAGTCTGTGAT
CCTTGGTGTCTGTGTGCCCCACTCCAGCCTGGGGACCCCACTTCAGAAAGGTAGGGGCCGTGTCGCCGGTGTGAC
TGAGGCTGCTTCCCCCTCCCTCCTGCTGTGCTGGAATTCACAGGGACCAGGGCCACCGCAGGGGACTGTCT
CAGAAGACTTGATTTTTTCGTCCCTTTTTCTCCACACTCCACTGACAAACGTCCCCAGCGTTTCCACTTGTGG

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FIGURE 166B

CTTCAGGTGTTTTCAAGCACAACCCACCACAACAAGCAAGTGCATTTTCAGTCGTTGTGCTTTTTTGTGTTTGTGC
TAACGTCTTACTAATTTAAAGATGCTGTGCGGCACCATGTTTATTIATTTCCAGTGGTCATGCTCAGCCTTGCTGC
TCTGCGTGGCGCAGGTGCCATGCCTGCTCCCTGTCTGTGTCCCAGCCACGCAGGGCCATCCACTGTGACGTCGGC
CGACCAGGCTGGACACCCTCTGCCGAGTAATGACGTGTGTGGCTGGGACCTTCTTTATTTCTGTGTTAATGGCTAA
CCTGTTACACTGGGCTGGGTTGGGTAGGGTGTCTGGCTTTTTTGTGGGGTTTTTATTTTAAAGAAACACTCAA
TCATCCTAG

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FIGURE 167

MINPYRNLPLAIIISLP IVTLVYVLTNLAYFTTLSTEQMLSSEAVAVDFGNYHLGVMSWIIPVFVGLSCFGSVNG
SLFTSSRLFFVGSREGHLPSILSMIHPQLLTPVPSLVFTCVMTLLYAFSKDIFSVINFFSFFNWLCVALAIIGMI
WLRHRKPELERPIKVNALP VFFILACFLIAVSFWKTPVECGIGFTIILSGLPVYFFGVWKNKPKWLLQGIFS
TTVLCQKLMQVVPQET

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FIGURE 168

TGAACTGAGCGGCCCTGAGCTGACAGATACACTGCGCAGTGGAAACGGCGAGCGAGCCGACGGGCGAGTGAGGGG
CGCACATGATCACCTCGGCCGCTGGAATTATTTCTCTTCTGGATGAAGATGAACCACAGCTTAAGGAATTTGCAC
TACACAAATTGAATGCAGTTGTTAATGACTTCTGGGCAGAAATTTCCGAGTCCGTAGACAAAATAGAGGTTTTAT
ACGAAGATGAAGGTTTCCGGAGTCGGCAGTTTGCAGCCTTAGTGGCATCTAAAGTATTTTATCACCTGGGGGCTT
TTGAGGAGTCTCTGAATTATGCTCTTGGAGCAAGGGACCTCTTCAATGTCAATGATAACTCTGAATATGTGGAAA
CTATTATAGCAAAATGCATTGATCACTACACCAACAATGTGTGGAAAATGCAGATTTCCTGAAGGAGAAAAA
AACCAATTGACCAGAGATTGGAAGGCATCGTAAATAAAATGTTCCAGCGATGTCTAGATGATCACAAGTATAAAC
AGGCTATTGGCATTGCTCTGGAGACACGAAGACTGGACGTCTTTGAAAAGACCATACTGGAGTCGAATGATGTCC
CAGGAATGTTAGCTTATAGCCTTAAGCTCTGCATGTCTTTAATGCAGAATAAACAGTTTCGGAATAAAGTACTAA
GAGTTCTAGTTAAATCTACATGAACTTGGAGAAAACCTGATTTTCATCAATGTTTGTCTAGTCTTAATTTCTTAG
ATGATCCTCAGGCTGTGAGTGATATCTTAGAGAACTGGTAAAGGAAGACAACCTCCTGATGGCATATCAGATT
GTTTTGATTTGTATGAAAGTGCTAGCCAGCAGTTTTTGTCTATCTGTAATCCAGAATCTTGAACGTGTTGGACCC
CTATTGCTTCTGTGCTGGATCCACTAATACGGGTACTGTTCCGGGATCAGAGAAAGACAGTGACTCGATGGAAA
CAGAAGAAAAGACAAGCAGTGCATTTGTAGGAAAGACACCAGAAGCCAGTCCAGAGCCTAAGGACCAGACTTTGA
AAATGATTAATAATTTAAGTGGTGAAATGGCTATTGAGTTACATCTGCAGTTCTTAATACGAAACAATAACAG
ACCTCATGATTCTAAAAACACAAAGGATGCAGTACGGAATTCTGTATGTCATACTGCAACCGTTATAGCAAACT
CTTTTATGCACTGTGGGACAACCAGTGACCAGTTTTCTTAGAGATAATTGGAATGGTTAGCCAGAGCCACTAACT
GGGCAAAATTTACTGCTACAGCCAGTTTGGGTGTAATTCATAAGGGTTCATGAAAAAGAAGCATTACAGTTAATGG
CAACATACCTTCCCAAGGATACTTCTCCAGGATCAGCCTATCAGGAAGGTGGAGGTCTCTATGCACTAGGTCTTA
TTCATGCCAATCATGGTGGTGATATAATTGACTATCTGCTTAATCAGCTTAAGAACGCCAGCAATGATATCGTTA
GACACGGTGGCAGTCTGGGCCCTTGGTTTGGCAGCCATGGGAACGTGCACGTCAAGATGTTTATGATTGCTAAAAA
CAAACCTTTATCAGGATGATGCAGTAACAGGGGAAGCAGCTGGCCTGGCCCTAGGTTTGGTTATGTTGGGCTCTA
AAATGCTCAGGCTATTGAGGACATGGTTGGTTATGCACAAGAACTCAACATGAGAAGATTCTGCGTGGTCTTG
CAGTTGGCATAGCTTTAGTAATGTATGGGAGGATGGAAGAGGCTGATGCTCTCATTGAATCTCTGTGCTGACA
AGGACCCAATTCTTCGAAGGTCTGGAATGTATACTGTAGCCATGGCTTATTGTGGCTCTGGTAACAACAAAGCAA
TTCGACGCTGCTACATGTGGCTGTAAGTGATGTGAATGATGATGTCAGGAGTGCAGCAGTAGAATCACTTGGGT
TCATTCTATTTCAGAACCCCTGAACAGTGCCCAAGTGTTGTCTCTTTGTTGTGAGAGATTACAACCCCTCATGTGC
GCTACGGAGCTGCAATGGCCTTGGGGATATGCTGTGCTGGTACAGGAAACAAGGAAGCCATTAAATTTGCTAGAAC
CAATGACAAACGACCCCGTGAACACGTGAGGCAAGGGGCACTCATAGCTTCAGCTCTCATCATGATCCAGCAGA
CTGAAATCACTTGTCCAAAGGTGAATCAGTTCAGACAGCTGTATTCCAAAGTCATCAATGATAAGCATGATGATG
TCATGGCCAAGTTTGGCGCTATTCTGGCCAGGGCATACTGGATGCAGGTGGTCATAATGTCACAATCTCCTTGC
AGTCCAGGACTGGGCATACTCATATGCCTTCTGTGGTTGGCGTCTTGTATTTACCCAGTTTTGGTTCTGGTTTC
CTCTTTCACACTTCTGTCTATTGGCTTATACCCCTACCTGTGTCTATTGGCCTTAACAAGGACTTAAAGATGCCGA
AAGTTCAGTATAAATCGAAGTGTAAACCATCCACATTTGCATATCCTGCCCTCTGGAAGTACCAAAAGAAAAAG
AAAAGGAAAAGGTTTCTACTGCTGTATTATCTATAACTGCCAAGGCTAAAAAGAAGGAAAAAGAAAAGGAAAAA
AGGAGGAGGAGAAAATGGAAGTGGATGAGGCAGAGAAAAGGAGGAAAAAGAGAAGAAAAAGAACCTGAGCCAA
ACTTCCAGTTATTGGATAACCCAGCCCGAGTTATGCCTGCCAGCTTAAGGTCCTAACCATGCCGGAGACCTGTA
GATACCAGCCTTTCAAACCACTCTCTATTGGAGGCATCATCTTGAAGGATACCAGTGAAGACATTGAGGAGC
TGGTGGAACCTGTGGCAGCACATGGCCCAAAATCGAGGAGGAGGAACAAGAGCCAGAACCCCAAGAACCTTTG
AGTATATTGATGATTAAAGGACCAGAGGATCTCACTTGCTTATCTGAAGAAGATTGTCCAGGCTCATATTGGGAAT
GCTTATGAGGAAATTCATGCCGAGACCTGCTATTCAATGCATGTATCGTTGCCTCTGCACTGACCTGAAGAACCC
TGTCTCCAAGTCTTTGGTTGAAGAGAAGATATGACTGTTGAGTGTGCTCTTTCACAGAAGTTGGTTTTCAAAT
AAATATAAGATCTCCAGATGGACAAG

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FIGURE 169

MITSAAGIISLLDEDEPQLKEFALHKLNAVNDFWAEISESVDKIEVLYEDEGFRSRQFAALVASKVFYHLGAFE
ESLNYALGARDLFNVNDNSEYVETIIAKCIDHYTKQCVENADLPEGEKKPIDQRLEGIVNKMFORCLDDHKYKQA
IGIALETRRLDVFEKTILESNDVPGMLAYSLKLCMSLMQNKQFRNKVLRVLVKIYMNLEKPDFINVCQCLIFLDD
PQAVSDILEKLVKEDNLLMAYQICFDLYESASQQFLSSVIONLRTVGTPIASVPGSTNTGTVPGSEKDSDSMETE
EKTSSAFVGKTPEASPEPKDQTLKMIKILSGEMAIELHLQFLIRNNNTDLMILKNTKDAVRNSVCHTATVIANSF
MHCGTTSDQFLRDNLEWLRATNWAKFTATASLGVIHKGHEKEALQMATYLPKDTSPGSAYQEGGGLYALGLIH
ANHGGDIIDYLLNQLKNASNDIVRHGGSGLGLAAMGTARQDVYDLLKTNLYQDDAVTGEAAGLALGLVMLGSKN
AQAIEDMVGYAQETQHEKILRGLAVGIALVMYGRMEEADALIESLCRDKDPILRRSGMYTVAMAYCGSGNNKAIR
RLLHVAVSDVNDVRSAAVESLGFILFRTPEQCPSVVSLLSESYNPHVRYGAAMALGICCAGTGNKEAINLLEPM
TNDPVNYVRQGALIASALIMIQQTEITCPKVNQFRQLYSKVINDKHDDVMAKFGAILAQGILDAGGHNVITISLQS
RTGHTHMPVSVGVLVFTQFWFWFPLSHFLSLAYTPTCVIGLNKDLKMPKVQYKSNCKPSTFAYPAPLEVPEKEKEK
EKVSTAVLSITAKAKKKEKEKEKEKEKMEVDEAEKKEKEKKKEPEPNFQLLDNPARVMPAQLKVLTPETCRY
QPFKPLSIGGIIILKDTSEDIEELVEPVAAHGPKIEEEEQEPEPEPEPEYIDD

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FIGURE 170A

TAGAATACTTGGGTGACATCTGCCTGAGAGATCTCCAAGAATTACAGAAGACAAAAATACTAATGCATTTGAGAA
AGCGGTAGTTTTGGGGGAGGGGAAAAAGCAACTGCTTTCCTGATCTGCAACTTGGCTGGATGCTAAGATGTCA
GTGGACATGAATAGCCAGGGTCTGACAGCAATGAAGAGGACTATGACCCAAATTGTGAGGAAGAGGAAGAGAA
GAAGAAGACGACCCCTGGGGACATAGAGGACTATTACGTGGGAGTAGCCAGCGATGTGGAGCAGCAGGGGGCTGAT
GCCTTTGATCCCAGGAGTACCAGTTCACCTTGCTTACCTACAAGGAATCTGAGGGTGCCTCAATGAGCACATG
ACCAGCTTAGCTTCTGTCTAAAGGTATCTCATTAGTTGCTAAACTTATATTAGTTAATTTCCACTGGCAAGTT
TCAGAGATATTGGACAGATACAAGTCCAATTCTGCTCAACTGCTTGTGAGGCTCGAGTTCAGCCTAATCCATCA
AAACATGTTCCACATCCCATCCCCCTACCACTGTGTCAGTGTGTATGCAGTTTGTGCGAAAGGAAAACCTACTC
TCTCTGGCCTGTGACACCAGTTTTGCGCAGCTGCTGGGAGCAGCACTGCTCAGTTCTCGTCAAGGACGGCGTG
GGCGTGGGAGTCTCTTGATGGCTCAGGACTGTCCACTCCGTACACCAGAGGACTTTGTGTTTCCACTTGCTTCCC
AATGAAGAATTGAGAGAGAAATACAGGCGCTACCTCTTCAGGGACTATGTGGAGAGTCATTACCAGCTCCAGCTG
TGCCCTGGTGCAGACTGCCCATGGTTATTCGGGTACAGGAGCCTAGAGCTCGCCGAGTACAGTGCAATCGGTGC
AACGAGGTCTTCTGTTTCAAGTGTGTCAGATGTATCAGCACCACAGACTGTGCCACAATCCGGAATGGCTC
ACGAAGTGTGCAGACGACTCTGAAACAGCCAACCTACATTAGTGTCTCACAATAAGACTGTCCCAAGTGCAACATC
TGCATTGAGAAGAATGGAGGCTGCAATCACATGCAATGCTCCAATGTAAACACGACTTCTGCTGGATGTGTCTA
GGAGATTGGAAGACTCATGGCAGTGAATACTATGAGTGCAGTCGTTACAAGGAGAATCCTGACATCGTGAACCAG
AGCCAACAAGCCAGGCGAGGGAAGCCCTCAAGAAGTACTTATTCTACTTTGAGAGGTGGGAAAACACAATAAA
AGCTTGCAGCTAGAGGCACAGACATACCAGCGGATTACAGAGAAGATTACAGGAGAGGGTCATGAACAATCTGGGG
ACATGGATCGACTGGCAGTACCTACAGAATGTGCCAAGCTCTGGCCAAGTGTGATAACCCCTGCAATACACC
TACCCATATGCATATTACATGGAGTCCGGACCCAGGAAGAAGCTGTTTGAATACCAGCAGGCTCAGCTGGAGGCT
GAGATCGAAAACCTCTCATGGAAGTGGAGCGTGACAGCAGCTATGACAGAGGGGACTTGGAGAACCAGATGCAT
ATAGCGGAGCAGCGGAGGAGAACCCCTGCTGAAAGATTTCCATGACACCTAAGTTGGGATGTGGATGTGCCGGGGT
GAGGAAGATGTGGCTGCAAGGTCTCCCGCTGCCATACTGCATGCTGCAGGCTCTGCCCTTTCATGACCCAGGCA
ACAGCCAGGGCCCACTCCTGAGAGACACTGGCAACACCTCTTAGTTGATTTCTGTTTTCTTCTTTTCACTTT
TTGTTTTCTACAGGGGTAGAGGCCATGTTGAACCTGCCTCTTTTTCAGGACTTTTTATTTCCTTGGATGGTTGTTG
GGAGGGAGGGGAAAGTGTTTTTCTGAATGGCTATTAATAGTATTAGATCATTACAACCTATGTAACCTTTCAAAGGTT
GTACAATTATACAAAAAAGGCAACTATAGGATAACACAGAGCCCTTTTGAATAAATTTGGCAT
TGGAGTGTTTTTACCTCTAGCTGTTTTACTTAGAATGTAACATATGCTGCCTACCCACCTCAAATGTCTGTACT
GCAAGAGGGCCCTGGGCCTCTGCTTTCCATATTACGTTTGGCCAGAGTTGTAGTCCCAAAGAAGAGCATGGGTG
GCAGATGGTAGGGAATTGAACCTGCCTGTGCAATGGGCATGGAGCACAAGGGGTACAGCATGCCTCCTGCCTTA
CCGTGGCAGTACGGAGACAGTCCAGAACATGGTCTTCTTGCCACGGGGTGTGTTGTCTCTGGTGGTGTGCATG
TCTGTGGCTCACCTTTATTCTTGAACTGAGGTTTACCTGGATCTGGCTACTGAGGCTAGAGCCACAGCAGAAT
GGGGTTGGGCCTGTGGCCCCAACTAGGGGGTGTGGGTTTCATCACAGTGTGCTTTTGTCTCCTAAAGATAGG
GATCTACTTTTGAAGGGAATTGTTCCCTCCCAATAAATTTGCTTTACCTTGGTCTTTCTTTTGTGCCAGTATTC
AAGTGGTATAGCTCTGAGCAGGGTCACATTTGGCCAAACCTGACACTGTCTTGCTGCATTTCTCTTTGGCAAACA
TCAGGGTCAGAATTCAGGATAGCCCTTCTAGGGCACTGGACTTTCTGGCATGGGGGCTGTGTTTGACAAGTTA
TTTTCATGTTACCTGGAGAGTGTCCAGAGGCTGCTCTGAGGCTGAGGTGTGTTCCCCCTTGCTGGTTCAGCTG
TCAGAGGGATACCATCCTAGGGTCTGGGAATCCAAGGCCACGAGACTCCTTGGTTTGTGGTCCGAGATCCTGTAC
TAAGGAGGGTCTGGCCAGAGGAACAGACCAGCTTTTGACAATGAAGCGCAAGGGAACAAGTGGTTTGCTGGTG
TCCTACCTGTCTGAACTGGTCTGTGGGCCATTGAAAAGTTAGATCTGTGATCTCTGGGGTTTTTGTGGCTTT
GTTCAATGCTTCCACTCTAGGGCAGGCAGAGCAGTCTATACTCTCCCAAGCCTGCTTGACCTCCAAGTAGAGCTG
ATACAGAGATCTGTGAATATTGTGATAGAAATCTTTGGTATTCTATACATTTACAGCTGCAAGTCAGCAATTTCCC
AGGTACCATGTAAGCTATAAACAGTCATTCTTAAAGACAGAGGATAGCTGTGACTCATGGGATCATGAGGTCCA
TGGCTGGTTGCAGGTTCCCTTTTTCTTCTCCTCAGGTTTTGTCTCTTCTGTGTTGTCCCCAGCAAGGGAGAGACT
GTGGGGTGGATTGGGAGAACAGATTAGGAGTATAGCAATGAACCCAGAATGGAACAGTGGGGAGCTAACTGTGA
ATGAGGAGAGTACCTGCTGCAGGACCTGGAGGTGAGGTGTGAATGCTGTATTGGCACAGGGAATAAATATCCTGG
CGTCTGGAGCCTTACCTCTCCGTCAAGTCTTCTGTGATACTGCCATGGCACAGGATCTGAGTTGCAGCTCTG
CACCTAAATCACACCTGGGCATTGTCTGGGCTGCAGGGCTGCCAGGTTCTGTACTTGTGTCCAGCTGTGGCCC

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FIGURE 170B

TGGATGCTGGAGCTGGAGGGTTTTCTGTGCTCAGACTGTAGCCTGTAGCTCTTGGCCTGIGTAGAGCCCCCTCCT
GTGCCCTCAGTGGCTGTCGTTTGTTAACATCATCAGGAAGATGGGAAAGGTCAGGCAGAATTTTTCTGCCCTACA
AAGGGTGGAAGAGAAAGGACACAGTATTTTCATGAATTTACCATATATCTTTGTTTTCTTCAACGAAAAAGTTA
ATTGAGGCAATGTCATCTGCTCAAAGTTGAGTGGTTTATTCACAATAAACTGTAAGTTTCTGATTAT

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FIGURE 171

MSVDMNSQGSDSNEEDYDPNCEEEEEEEEDDPGDIEDYYVGVASDVEQQGADAFDPEEYQFTCLTYKESEGALNE
HMTSLASVLKVSHSVAKLILVNFHWQVSEILDYKSNQAQLLVEARVQPNPSKHVPTSHPPHCAVCMQFVRKEN
LLSLACQHQFCRSCWEQHCSVLVKDGVGVGVSCMAQDCPLRTPEDFVFPLLPNEELREKYRRYLFRDYVESHYQL
QLCPGADCPMVIRVQEPRARRVQCNRCNEVFCFKCRQMYHAPTDCATIRKWLTKCADDSETANYISAHTKDCPKC
NICIEKNGGCNHMQCSKCKHDFCWMCLGDWKTHGSEYYECSRYKENPDIVNQSQAQAREALKKYLFFERWENH
NKSLQLEAQTYQRIHEKIQERVMNNLGTWIDWQYLQNAAKLLAKCRYTLQYTPYAYMESGPRKKLFYQQAQL
EAEIENLSWKVERADSYDRGDLENQMHIAEQRRRTLLKDFHDT

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FIGURE 172

TAGCTAGGCAGGAAGTCGGCGCGGGCGGGCGGACAGTATCTGTGGGTACCCGGAGCACGGAGATCTCGCCGGCT
TTACGTTACCTCGGTGTCTGCAGCACCTCCGCTTCTCTCTAGGCGACGAGACCCAGTGGCTAGAAGTTCAC
CATGTCTATTCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGAATCCCACTGTTGAGGTTGATCTCTT
CACCTCAAAAGGTCTCTTCAGAGCTGCTGTGCCAGTGGTGCTTCAACTGGTATCTATGAGGCCCTAGAGCTCCG
GGACAATGATAAGACTCGCTATATGGGGAAGGGTGTCTCAAAGGCTGTTGAGCACATCAATAAACTATTGCGCC
TGCCCTGGTTAGCAAGAACTGAACGTACAGAACAGAGAAGATTGACAACTGATGATCGAGATGGATGGAAC
AGAAAATAAATCTAAGTTTGGTGCGAACGCCATTCTGGGGGTGTCCCTTGCCGTCTGCAAAGCTGGTGCCGTGA
GAAGGGGGTCCCCCTGTACCGCCACATCGCTGACTTGGCTGGCAACTCTGAAGTCATCTGCCAGTCCCGGCGTT
CAATGTTCATCAATGGCGGTTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTCATGATCCTCCAGTCGGTG
AGCAAACCTTCAGGAAGCCATGCGCATTGGAGCAGAGGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATA
TGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTCCCAACATCCTGGAGAATAAAGAAGGCCTGGA
GCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGGTGGTCATCGGCATGGACGTAGCGGCCTCCGA
GTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCGATGACCCAGCAGGTACATCTCGCCTGACCA
GCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGA
CTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGGATGATCTCACAGTGACCAACCC
AAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCCTCCTGCTCAAAGTCAACCAGATTGGCTCCGT
GACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTTGGGGCGTCATGGTGTCTCATCGTTCCGGGGGA
GACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACTGGGCAGATCAAGACTGGTGCCCTTGCCG
ATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAGAGGAGCTGGGCAGCAAGGCTAAGTTTGCCGG
CAGGAACCTTCAGAAACCCCTTGGCCAAGTAAAGCTGTGGGCAGGCAAGCCCTTCGGTCACCTGTTGGCTACACAGA
CCCCTCCCCTCGTGTGCTGAGCTCAGGCAGCTCGAGGCCCGGACCAACACTTGCAGGGGTCCCTGCTAGTTAGCGCC
CCACCGCCGTGGAGTTCGTACCGCTTCCCTAGAACTTCTACAGAAGCCAAGCTCCCTGGAGCCCTGTTGGCAGCT
CTAGCTTTGCAGTCGTGTAATTGGCCCAAGTCATTGTTTTCTCGCCTCACTTTCCACCAAGTGTCTAGAGTCAT
GTGAGCCTCGTGTCTCTCCGGGGTGGCCACAGGCTAGATCCCGGTGGTTTTGTGCTCAAATAAAAAGCCTCA
GTGACCCATGAG

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FIGURE 173

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALERDNDKTRYMGKGVSKAVEHINKTIAP
ALVSKKLNVTQEKEIDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGNSEVILPVPAF
NVIINGGSHAGNKLAMQEFMILPVGAANFREAMRIGAEVYHNLKNVIKEKYGKDATNVGDEGGFAPNILENKEGLE
LLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLYKSFIKDYPVVSIEDPFDQDD
WGAWQKFTASAGIQVVGDDLTVINPKRIAKAVNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGMVSHRSGE
TEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEEEELGSKAKFAGRNFRNPLAK

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FIGURE 174

GGCTGAGGCAGTGGCTCCTTGACAGCAGCTGCACGCGCCGTGGCTCCGGATCTTCTTCGTCTTTGCAGCGTAGC
CCGAGTCGGTCAGCGCCAGAGGACCTCAGCAGCCATGTCGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTCA
GACCCAGCAGCTGCACGCAGCCATGGCTGACACATTCTGGAGCACATGTGCCGCTGGACATTGATTACCACC
CATCACAGCCCGAACACTGGCATCATCTGTACCATTTGGCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGAT
GATTAAGTCTGGAATGAATGTGGCTCGTCTGAACCTTCTCATGGAACATCATGAGTACCATGCCGAGACCATCAA
GAATGTGCGCACAGCCACGGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCCGTTGCTGTGGCTCTAGACAC
TAAAGGACCTGAGATCCGAACCTGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCAC
TCTCAAAATCACGCTGGATAACGCCTACATGGAAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACAT
CTGCAAGGTGGTGAAGTGGGAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCAGAAAGG
TGCCGACTTCTTGGTGACGGAGGTGGAAGTGGTGGCTCCTTGGGAGCAAGAAGGGTGTGAACCTTCTGGGGC
TGCTGTGGACTTGCTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT
GGTGTTCGCTCATTATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCTGGGAGAGAAGGGAAAGAA
CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGTTGCGAGGTTTATGAAATCCTGGAGGCCAGTGATGG
GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCTCGAGAGAAGGTCTTCTTGTCTCAGAAGATGATGAT
TGGACGGTGCAACCGAGCTGGGAAGCCTGTCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG
CCCCACTCGGGCTGAAGGCAGTGATGTGGCCAATGCAGTCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGA
AACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGAACCTGATTGCCCGTGAGGCAGAGGCTGCCAT
CTACCACTTGCAATTATTTGAGGAACTCCGCCGCTGGCGCCCATTACCAGCGACCCACAGAAGCCACCGCCGT
GGGTGCCGTGGAGGCCTCCTTCAAGTGCTGCAGTGGGGCCATAATCGTCCTCACCAAGTCTGGCAGGTCTGCTCA
CCAGGTGGCCAGATACCGCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCA
CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCG
GGTGAACCTTTGCCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGG
ATGGCGCCCTGGCTCCGGCTTCACCAACACCATGCGTGTGTTCTTCTGTGCCGTGATGGACCCAGAGCCCTCCT
CCAGCCCTGTCCCACCCCTTCCCCAGCCATCCATTAGGCCAGCAACGCTTGTAGAACTCACTCTGGGCTGT
AACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTGTTGCAGCCT
GCTCTAGTGGGACAGCCCAGAGCCTGGCTGCCCCATCATGTGGCCCCACCAATCAAGGGAAGAAGGAGGAATGC
TGGACTGGAGGCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCTTTCTGTGTACTCTGTCCAGTTCTT
TTAGAAAAAATGGATGCCCAGAGGACTCCCAACCCTGGCTTGGGGTCAAGAAACAGCCAGCAAGAGTTAGGGGCC
TTAGGGCACTGGGCTGTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTTGCTTCTCTAGCTCTTAGGC
CTCTCCAGTTTGACCTGTCCCCACCTCCACTCAGCTGTCTGCAGCAAACTCCACCCTCCACCTTCCATTT
TCCCCACTACTGCAGCACCTCCAGGCCTGTTGCCGC

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FIGURE 175

MSKPHSEAGTAFIQTTQLHAAMADTFLEHMCRLDIDSPITARNGTGIICTIGPASRSVETLKEMIKSGMNVARLN
FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKSGTAELKKGATLKITLDNAYME
KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGAAVDLPVSEKD
IQDLKFGVEQDQVDMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE
IPAEEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV
RMQNLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIIVLTKSGRSAHQVARYRPRAPI
IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTM
RVVPVP

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FIGURE 176

GGCTTGGTCACTATGGAGGAGATAGGCATCTTGGTGGAGAAGGCTCAGGATGAGATCCCAGCACTGTCCGTGTCC
CGGCCCCAGACCGGCTGTCTTCTTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG
CTGCAGCAAGAGCTGGAGTTCTTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAGGAA
TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG
GATCAGAATACAGCCATCGTGGGCTCTACCACAGGCTCCAACTATTATGTGCGCATCTGAGCACCATCGATCGG
GAGTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCGAA
GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC
ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTGAGCTCTACAAGCAGATCGGCATC
GATCCCCCGAGGGCGTCTCATGTATGGCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT
CACACAACAGCTGCATTTCATCCGGGTCTGGGCTCGGAGTTTGACAGAAGTATCTGGGTGAGGGCCCCCGCATG
GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC
ACCAAGAGATTGATGCTCAGACAGGGGCCGACAGGGAGGTTGAGAGGATCCTGCTGGAGCTGCTGAATCAGATG
GATGGATTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG
CTACGGCCAGGACGGCTGGACCGTAAAATTGAATTTCCACTTCCTGACCGCCGCCAGAAGAGATTGATTTTCTCC
ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA
GGAGCTGATATCAACTCCATCTGTGAGGAGAGTGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCTGGCC
AAGGACTTCGAGAAAGCATACAAGACTGTCTCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAGTGACCCCTTC
CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC
CCTTTTTTCTTTACCCAGGATTGGTTTCTTCAATAAATAGATAAGATCGAATCCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 177

MEEIGILVEKAQDEIPALSVSRPQTGLSFLGPEPEDLEDLYSRYKKLQQELEFLEVQEEYIKDEQKNLKKEFLHA
QEEVKRIQSIPLVIGQFLEAVDQNTAIVGSTTGSNYVVRILSTIDRELLKPNASVALHKHSNALVDVLPPEADSS
IMMLTSDQKPDVYADIGGMDIQKQEVREAVELPLTHFELYKQIGIDPPRGVLMYGPPGCGKTMLAKAVAHHTTA
AFIRVVGSEFVQKYLGEPRMVRDVFRLLAKENAPAIIFIDEIDAIATKRFDAQTGADREVQRILLELLNQMDGFD
QNVNVKVIMATNRADTLDPALLRPGRLDRKIEFPLPDRRQKRLIFSTITSKMNLSEEVDLEDYVARPDKISGADI
NSICQESGMLAVRENRYIVLAKDFEKAYKTVIKKDEQEHEFYK

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FIGURE 178

CCGAGGCCAAGTCCCGGGCGCTAGCCACCTCCCACCCGCTCTTGCTCCTCTCCTCTAGGCCGTCGCTTTCGG
GTTCTCTCATCGCTTCGTCGTTCCGAATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAGATGGGAGGCGAG
GAGAAGCCGATTGGTGCTGGTGAAGAGAAGCAAAAGGAAGGAGGCCAAAAAGAAGAACAAAGAAGGATCTGGAGAT
GGAGGTCGAGCTGAGTTGAATCCTTGCCCTGAATATATTTACACACGCTTTGAGATGTATAATATACTAAAAGCA
GAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAGATAGCAAGCCAATTAAAGTCACTTTGCCTGATGGTAAA
CAGGTTGATGCGGAATCTTGGAACACTACACCATATCAAATTGCCTGTGGAATTAGTCAAGGCCTGGCCGACAAC
ACCGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCGCCCTCTGGAAGAAGATTGTACCTTGAGCTT
CTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCAGTCTAGTCTCACATAATGGGTGAAGGCATGGAA
AGAGTCTATGGTGGATGTTTATGCTACGGTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAA
GGGGGTGTGCTAGCAATGATTTCTCTCTGGAGGCTTTGTGTAAGAAAATCATTAAAGAAAAACAAGCTTTT
GAAAGCTGGAAGTTAAGAAAGAACTTTACTGGCAATGTTTAAGTACAACAAGTTCAAATGCCGGATATTGAAT
GAAAAGGTGAATACTCCAACACCACAGTCTATAGATGTGGCCCTTTGATAGATCTCTGCCGGGGTCTCTATGTT
AGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGTACTGGGAAGGCAGAGATATG
GAGACTCTCCAGAGATTTATGGCATTTCATTCCCAGATCCTAAATGTTGAAAGAGTGGGAGAAGTTCCAAGAG
GAAGCTAAAAACCGAGATCATAGGAAAATTGGCAGGGACCAAGAAGTATATTTCTTTTCACTGAACTCAGCCCTGGA
AGTTGCTTTTTTCTGCCAAAAGGAGTCTATATTTATAATGCACCTTATTGAATTCATTAGGAGCGAATATAGGAAA
AGAGATTTCAGGAGTAGTCACCCCAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCAC
TACAGCGAGAACATGTTCTCCTTTGAGGTGGAGAAGGAGCTGTTTGCCCTGAAACCCATGAACTGCCAGGACAC
TCCCTTATGTTTGATCATCGGCCAAGGTCCTGGCGAGAAGTGCCTCTGCGGCTAGCTGATTTGGGGGTCTTCAT
AGGAACGAGCTGTCTGGAGCACTCACAGGACTCACCCGGGTACGAAGATTCCAACAGGATGATGCTCACATATTC
TGTGCCATGGAGCAGATTGAAGATGAAATAAAAGGTTGTTTGGATTTTCTACGTACGGTATATAGCGTATTTGGA
TTTTCTTTTAAACTAAACCTTTCTACTCGCCCGGAAAAATTCCCTGGAGATATCGAAGTATGGGATCAAGCTGAG
AAACAACCTTGAAAACAGTCTGAATGAATTTGGTGAAGTGGGAGTTAAACTCTGGAGATGGAGCTTTCTATGGC
CCAAAGATTGACATACAGATTAAAGATGCGATTGGGCGGTACCACAGTGTGCAACCATCCAGCTGGATTTCCAG
TTGCCCATCAGATTTAATCTTACTTATGTAAGCCATGATGGTGAAGATAAGAAAAGGCCAGTGATTGTTTCATCGA
GCCATCTTGGGATCAGTGGAAAGAATGATTGCTATCCTCACAGAAAATATGGGGGCAAATTGGCCCCCTTTTGG
CTGTCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCCAAAACGTACGACAACAA
TTCCACGATGCCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTGAAATGCA
CAGTTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAGAAAGAGAAAATCACTGGCACTGTAAATATCCGCACA
AGAGACAATAAGGTCCACGGGGAACGCACCATTCTGAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCCGC
AGCAAACAGGCAGAAGAAGAATTTTAAATGAAAAAATTACCCAGATTGGCTCCATGGAAGGAGGAACAGCGTTT
CCGTAAAATTGACTTTGTACTCGAAAACGTCAATTTATATTGAACCTGGAGGAGGAGTTGGCAAAGTCTGAAAT
AGGTCAACCTGCAGGCGTAATTTTTGACCTAGTCAGTTTTTAAACAATGTGCATTTGAAGGAGTTAATTAAA
AGAGAGCCAATAAAATGATTTTACTCATTCACTATCTGAGTACTGGAAGTGAACATGAGGAATGCTTTAGTGTA
ATGTGGGAGAACTTTTTGTAAATTTAATGCAATTGAAAAAGTTTTCAAATTCATTAAGATACTAGAATTGGT
TATGGTGTAAACCGAATTC

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FIGURE 179

MGGEKPIGAGEEKQKEGGKKKNKEGSGDGGRAELNPWEYIYTRLEMYNILKAEHDSILAEKAEKDSKPIKVTL
PDGKQVDAESWKTPYQIACGISQGLADNTVIAKVNNVVWDLDRPLEEDCTLELLKFEDEEAQAVYWHSSAHIMG
EGMERVYGGCLCYGPPIENGFFYDMYLEEGGVSSNDFSSEALCKKIIKEKQAFERLEVKKETLLAMFKYNKFKC
RILNEKVNTPTTTVYRCGPLIDLRCRPHVRHTGKIKALKIHKNSSTYWEGKADMETLQRIYGISFPDPKMLKEWE
KFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGVYIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSG
HWQHYSENMFSEVEKELFALKPMNCPGHSLMFDHRPRSWRELPLRLADFGGLHRNELSGALTGLTRVRRFQDD
AHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDI EVWDQAEKQLENSLNEFGEKWEINSGDG
AFYGPKIDIQIKDAIGRYHCATIQDLDFQLPIRFNLTYVSHDGEDKKRPVIVHRAILGSVERMIAILTENYGGKL
APFWLSRQVMVVPVGPTCDEYAQNVRQQFHDAKFMADIDLDPGCTLNKKIRNAQLAQYNFILVVGEKEKITGTV
NIRTRDNKVHGERTISETIERLQQLKEFRSKQAEDEF

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FIGURE 180

GGCACGAGGATTTCGCTGCTCCGCAGCACGGCCGGAGCTGGTCCGGTCAAGAGTCGGGATTTGTGGGGAGAGGTTT
TCCACTGGTCAAGAGAAGGCTTTAAGAAAGACGGTATTAATCTCCCGTTGCGGCTCCCGCTGGTCCCATCTTCT
GCCCCGCTCCTCCAGGAAATGAATCTGCTGCCGAATATTGAGAGTCCAGTGACTCGGCAGGAGAAGATGGCGACCG
TGTGGGATGAGGCCGAGCAAGATGGAATTGGGGAGGAGGTGCTCAAGATGTCCACGGAGGAGATCATCCAGCGCA
CACGGCTGCTGGACAGTGAGATCAAGATCATGAAGAGTGAAGTGTGAGAGTCACCCATGAGCTCCAAGCCATGA
AGGACAAGATAAAAGAGAACAGTGAGAAAATCAAAGTGAACAAGACCCTGCCGTACCTTGTCTCCAACGTCATCG
AGCTCCTGGATGTTGATCCTAATGACCAAGAGGAGGATGGTGCCAATATTGACCTGGACTCCCAGAGGAAGGGCA
AGTGTGCTGTGATCAAAACCTCTACACGACAGACGTACTTCTTCTGTGATTGGGTGGTGGATGCTGAAAAGC
TAAAGCCAGGAGACCTGGTGGGTGTGAACAAAGACTCCTATCTGATCCTGGAGACGCTGCCCACAGAGTATGACT
CGCGGGTGAAGGCCATGGAGGTAGACGAGAGGCCACCGAGCAATACAGTGACATTGGGGGTTTGGACAAGCAGA
TCCAGGAGCTGGTGGAGGCCATTGTCTTGCCAATGAACCACAAGGAGAAGTTTGAGAACTTGGGGATCCAACCTC
CAAAAGGGGTGCTGATGTATGGGCCCCAGGGACGGGAAGACCCTCCTGGCCCGGGCCTGTGCCGCACAGACTA
AGGCCACCTTCTAAAGCTGGCTGGCCCCAGCTGGTGCAGATGTTTATTGGAGATGGTGCCAAGCTAGTCCGGG
ATGCCCTTTGCCCTGGCCAAGGAGAAAAGCGCCCTCTATCATCTTCATTGATGAGTTGGATGCCATCGGCACCAAGC
GCTTTGACAGTGAGAAGGCTGGGGACCGGGAGGTGCAGAGGACAATGCTGGAGCTTCTGAACCAGCTGGATGGCT
TCCAGCCCAACACCCAAGTTAAGGTAATTGCAGCCACAAACAGGGTGGACATCCTGGACCCCGCCCTCCTCCGCT
CGGGCCGCTTGACCGCAAGATAGAGTTCCCGATGCCCAATGAGGAGGCCCGGGCCAGAATCATGCAGATCCACT
CCCGAAAGATGAATGTGTCAGTCCTGACGTGAACCTACGAGGAGCTGGCCCGCTGCACAGATGACTTCAATGGGGCCC
AGTGCAAGGCTGTGTGTGTGGAGGCGGGCATGATCGCACTGCGCAGGGGTGCCACGGAGCTCACCACGAGGACT
ACATGGAAGGCATCCTGGAGGTGCAGGCCAAGAAGAAAGCCAACCTACAATACTACGCCTAGGGCACACAGGCCA
GCCCCAGTCTCACGGCTGAAGTGCGCAATAAAAGATGGTTTAGGGTCCCTGCCAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 181

MNLLPNIESPVTRQEKMATVWDEAEQDGIGEEVLKMSTEEIIQRTRLDSEIKIMKSEVLRVTHELQAMKDQIKE
NSEKIKVNKTLPYLVSNVIELLDVDPNDQEEDGANIDLDSQRKGKCAVIKTSTRQTYFLPVIGLVDAEKLKPGDL
VGVNKDSYLILETLPTFYDSRVKAMEVDERPTEQYSDIGGLDKQIQELVEAIVLPMNHKEKFENLGIQPPKGVLM
YGPPGTGKTLLARACAAQTKATFLKLAGPQLVQMFIDGAKLVDAFALAKEKAPSIIFIDELDAIGTKRFDSEK
AGDREVQRTMLELLNQLDGFQPNTOVKVIAATNRVDILDPALLRSGRLDRKIEFPMPNEEARARIMQIHSRKMN
SPDVNYEELARCTDDFNGAQCKAVCVEAGMIALRRGATELTHEDYMEGILEVQAKKANLQYYA

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FIGURE 182

GGCACCGCGCGGGACGGAGCTTGGCTGTTGGTCGGTGGGTTCCTGTCGGCGGGCGGCCAAGGAGGAGGAGACACA
GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTGC GGCCGAGCCTGCGGCGC
CTTCCCCCTGCGGGTGGGGACGAGCGGGCCCCGCGGCGTTCATCGGCGGCGAGGAGCCGCCGCGCCTCGGCCTAGCA
TGTCGGAAGCGGGCGAGGAGCAGCCCATGGAGACGACGGGCGCCACCGAGAACGGACATGAGGCCGTCCCCGAAG
CGAGTGC GGCCGCGGGCTGGACGGGCGCGCGCGGGGCTGGAGGCGCGACCGCCGCGCCCCGAGCGGGAATCA
GAACGGCGCCGAGGGACAGATCAACGCCAGCAAGAACGAGGAGGACGCGGGA AAAATGTTCTGTTGGTGGCCTGA
GCTGGGATACTAGCA AAAAGATTTAAAAGACTATTTTACTAAATTTGGAGAGGTCGTTGACTGTACAATAAAAA
TGGATCCCAACACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGAAGGTCC
TAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCTAAAAAGGCCATGGCTATGAAGAAGGACCCGG
TCAAGAAAACTTTCGTTGGGGTCTGAATCCTGAAAGTCCCCTGAGGAAAAGATCAGGGAGTACTTTGGCGAGT
TTGGGGAGATTGAGGCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAGACGAGGTTTTGTGTTTATCACCT
TTAAAGAAGAAGAACCCGTGAAGAAGTTCTGGAGAAAAGTTCCATACTGTCAGTGAAGCAAGTGTGAGATCA
AGGTGGCCAGCCCAAAGAAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGGCCGTGGAACCGCAACCGAGGGA
ACCGAGGCAGCGGAGGTGGTGGTGGAGGTGGAGGTCAGAGTCAGAGTTGGAATCAGGGCTACGGCAACTACTGGA
ACCAGGGCTACGGCTACCAGCAGGGCTACGGGCCCTGGCTATGGCGGCTACGACTACTCGCCCTATGGCTATTACG
GCTACGGCCCCGGCTACGACTACAGTCAGGGTAGTACAACTACGGCAAGAGCCAGCGACGTGGTGGCCATCAGA
ATAACTACAAGCCATACTGAGGCGGCCAAGGGAGCGACCAACTGATCGCACACATGCTTTGTTTGGATATGGAGT
GAACACAATTATGTACCAAATTTAACTTGGCAAACTTTCTATTGCCTGTCCCATGTGCATCTTATTTAAATTTT
CCCCATGGAATCACTCTCCTGTTGACTATTTCCAGAGCTCTAGGTGTTTAGGCAGCGTGTGGTGTCTGAGAGGC
CATAGCGCCATCATGGGCTGATTTTTATTACCAGGTCCCCAGAAGCAGGTGAGAGGCTCTGCTTCCTGTGCGCG
CTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAAGAGTAAATTGTATCTTAGGAAACCAGTGTACCTTTTTTT
CACCTTTTAAATTTTATATTATTTGCGTCATACATTTCTGTAAACGGAAGTGTTAATTTTACTGTACTTTTTGGTA
CCCCTTTGGGAATCTAATGTATTGTAAGGTATTTTACACGTGTCCTGATTTTGCCACAACCTGGATATTGAAGC
TATCCAAGCTTTTGAATAAAAATTTAAAAACCCCAAGCCTGGGTGAGTGTGGGAAAAAAAAAAAAAAAAA

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FIGURE 183

MSEAGEEQPMETT GATENGHEAVPEASRGRGWTGAAAGLEARPPRPRAGIRTAPRDQINASKNEEDAGKMFVGGGL
SWDTSKDLKDYFTKFGVVDCTIKMDPNTGRSRGFGFILFKDAASVEKVLDQKEHRLDGRVIDPKKAMAMKKDP
VKKIFVGGGLNPESPTEEKIREYFGEFGEIEAIELPMDPKLNKRRGFVFITFKEEEPVKVLEKKFHTVSGSKCEI
KVAQPKEVYQQQQYGS GGRGNRNRGNRSGGGGGGGGQSQSWNQGYGNYWNQGYGYQQGYGPGYGGYDYSPIGY
GYGPGYDYSQGSTNYGKSQRRGGHQNNYPY

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FIGURE 184

TAGCTGGATTCCAGCCATTGCTGCAGCTGCTCCACAGCCCTTTTCAGGACCCAAACAACCGCAGCCGCTGTTCCC
AGGATGGTGATCCGTGTATATATTGCATCTTCCTCTGGCTCTACAGCGATTAAGAAGAAACAACAAGATGTGCTT
GGTTTCCTAGAAGCCAACAAAATAGGATTTGAAGAAAAAGATATTGCAGCCAATGAAGAGAATCGGAAGTGGATG
AGAGAAAATGTACCTGAAAATAGTCGACCAGCCACAGGTTACCCCTGCCACCTCAGATTTTCAATGAAAGCCAG
TATCGCGGGGACTATGATGCCTTCTTTGAAGCCAGAGAAAATAATGCAGTGTATGCCTTCTTAGGCTTGACAGCC
CCACCTGGTTCAAAGGAAGCAGAAGTGCAAGCAAAGCAGCAAGCATGAACCTTAAGCACTGTGCTTTAAGCATCC
TGAAAAATGAGTCTCCATTGCTTTTATAAAATAGCAGAATTAGCTTTGCTTCAAAGAAAATAGGCTTAATGTTGA
AATAATAGATTAGTTGGGTTTTACATGCAAACATTCAAATGAATACAAAATTTAAATTTGAACATTATGGTGA
TTATGGTGAGGAGAATGGGATATTAACATAAAATTATATTAATAAGTAGATATCGTAGAAATAGTGTGTTACCT
GCCAAGCCATCCTGTATACACCAATGATTTTACAAAGAAAACACCCTTCCCTCCTTCTGCCATTACTATGGCAAC
TTAAGTGTATCTGCAGCTCTACATTAAGGAGAAAGAGAAAATAACCTGTCTCTCATTCTTAAGTTGCCTCATT
AATTTTCATGAACAAGAATATGTACCTTTTTGATGCTATATTACTGCGATTAAAAAGTTCTTGCAAGTAATGTT
TATGTATAGTTAAACGTTGTAATTTCTTATCGTAATTATAACATTCCCATTTCTTTGTAGATGAACTCTACATAT
GAACCACAGATTTTCTGAGCTTCTAAATGTAGCCTTTTCATTGCACATTTTCAGTGATCAGAATAGATATCCTTTTA
CACGCACAAAAGCAATAGATTCAATTCAGTGGACAAGTTCCTTGTTAACTACACAGCTATGATGGAATCATATAT
CCAAGTTCCTTGCTCAGTGAAATATGCATATGTATATCATGAAGTGGGATGCCAAGTAAGCTTAAATGCATTC
TCTAGCAAAGAGATTAGACTTTTTAAATAACTCTTATAAAACAGGTTGGCGATCATTTCCTCAAGATTGGTTTCCCT
TGAGTTTTTGTTAAACAAATCTTAGTAGTTTTGCCGTTTAAACAACTCACAATCGTAAATGCTACTATTCCCT
AAGATATCTTACCTTTTTATTTCAGTTTAGCCATGTATTGTATGAGTGTATTAGTCTAAGCAGTGAGAATCTTTT
CTATGCCTCTATTCCAGCAAAAAGTAGAAGTATCAAATAAAAAGGGCAACTTTTAAATATTAAGCCTGAAGACT
TCTAAAAAGACAAGAAACATGGCCTAAATAACCAACATAGATTTACATAGTAAGTTTCACACTACCTTATTACCA
AAAGCAAACACCTCTTACTTTAACTACATTATCATGTATATCTATTGTATGCTGGTCTTTACTTTTGCCAAA
TCAACATATAATGAAGAGATGCCTTTGTTTGATGAGATTCAAACCTTGATGCTATGCTTTAAATAAACTCAGTAC
TTTTAGAAACATAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 185

MVIRVYIASSSGSTAIKKKQDVLGFLEANKIGFEEKDIAANEENRKWMRENVPENSRPATGYPLPPQIFNESQY
RGDYDAFFEARENNAVYAFLGLTAPPGSKEAEVQAKQQA

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FIGURE 186

ATGGCGGAGCGCGGGTACAGCTTTTCGCTGACTACATTACAGCCCGTCTGGTAAACTTGTCAGATTGAATATGCT
TTGGCTGCTGTAGCTGGAGGAGCCCCGTCCGTGGGAATTAAAGCTGCAAATGGTGTGGTATTAGCAACTGAGAAA
AAACAGAAATCCATTCTGTATGATGAGCGAAGTGACACAAAGTAGAACCAATTACCAAGCATATAGGTTTGGTG
TACAGTGGCATGGGCCCCGATTACAGAGTGCTTGTGCACAGAGCTCGAAAAGTAGCTCAACAATACTATCTTGTG
TACCAAGAACCCATTCTACAGCTCAGCTGGTACAGAGAGTAGCTTCTGTGATGCAAGAATATACTCAGTCAGGT
GGTGTTTCGTCCATTTGGAGTTTCTTTACTTATTTGTGGTTGGAATGAGGGACGACCATATTTATTTTCAGTCAGAT
CCATCTGGAGCTTACTTTGCCTGGAAAGCTACAGCAATGGGAAAGAACTATGTGAATGGGAAGACTTTTCCTTGAG
AAAAGATATAATGAAGATCTGGAACCTGAAGATGCCATTACATAGCCATCTTAACCCTAAAGGAAAGCTTTGAA
GGGCAAATGACAGAGGATAACATAGAAGTTGGAATCTGCAATGAAGCTGGATTTAGGAGGCTTACTCCAAGTAA
GTTAAGGATTACTTGGCTGCCATAGCATAACAATGAAGTGACTGAAAAATCCAGAATTCAGATAATCTATCTAC
TTAAACATGTTTAAAGTATGTTTTGTTTTGCAGACTTTTGCATACTTATTTCTACATGGTTTAAATCGACTGTT
TTTAAATGACACTTATAAATCCTAATAAACTGTTAAACCC

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FIGURE 187

MAERGYSFSLTTFSPSGKLVQIEYALAAVAGGAPSVGIKAANGVVLATEKKQKSILYDERSVHKVEPITKHIGLV
YSGMGPDYRVLVHRARKLAQQYYLVYQEP IPTAQLVQRVASVMQEYTSGGVRPFGVSLICGWNEGRPYLFQSD
PSGAYFAWKATAMGKNYVNGKTFLEKRYNEDLELEDAIHTAILTLKESFEGQMTEDNIEVGICNEAGFRRLTPTE
VKDYLAIA

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FIGURE 188

GC GATT CGGT GGCAC GTGGAGCCACGGCGTGGGAGTAGGGGGCTGAAGGCAGGCAGCAGCGGCCAGGGCCGCCCT
CTGCTAGCCGCTTGGGTCTCGGGATACCCCGTTTCTTCTGTAGGTGTGGGACGTGCGTGCGGCGAGATGGACAC
TCCCCGCTCTCGGATTCGGAGTCGGAATCCGATGAATCCCTTGTACAGACAGAGAGTTGCAGGATGCGTTTTC
CCGAGGGCTTCTGAAGCCAGGCCTCAATGTCGTGCTAGAGGGGGCCGAAGAAGGCCGTGAACGACGTGAATGGCCT
GAAGCAATGTTTGGCAGAATTCAAGCGGGATCTGGAATGGGTTGAAAGGCTCGATGTGACACTGGGTCCGGTACC
GGAGATCGGTGGATCTGAGGCGCCAGCACCTCAGAACAAGGACCAGAAAGCTGTTGATCCAGAAGACGACTTCCA
GCGAGAGATGAGTTTCTATCGCCAAGCCCAGGCCGAGTGCTTGCAGTCTTACCCCGCCTCCATCAGCTCAAAGT
CCCTACGAAGCGACCCACTGATTATTTTGGGAAATGGCCAAATCTGATCTGCAGGTGCAGAAGATTTCGACAGAA
GCTGCAGACTAAACAGGCTGCCATGGAGAGGTCTGAAAAAGCTAAGCAACTGCGAGCACTTAGGAAATACGGGAA
GAAGGTGCAAACGGAGGTTCTTCAGAAGAGGCAGCAGGAGAAAGCCCATATGATGAATGCTATTAAGAAATATCA
GAAAGGCTTCTCTGATAAACTGGATTTCTTGAGGGAGATCAGAAACCTCTGGCACAGCGCAAGAAGGCAGGAGC
CAAAGGCCAGCAGATGAGGAAGGGGCCAGTGCTAAACGACGGTATAAAAAACCAGAAGTTTGGTTTTGGTGAAAA
GAAGAAAGGCTCAAAGTGGAACACTCGGGAGAGCTATGATGATGTATCTAGCTTCCGGGCCAAGACAGCTCATGG
CAGAGGCCTCAAGAGGCCTGGCAAGAAAGGGTCAAATAAGAGACCTGGAAAACGAACAAGAGAGAAGATGAAGAA
CAGAACACACTAAATAGCATCTTTGAATACAAAGAACCAAGAAAAAGGAATGAAGACTCGCAATTTACGACACA
CTTTGATCCCTTCTGTTGGTGTTCATGTTGTAAACATTTCTTTCAATAAACTAAAGAAAAATTATTAAAGGAACAC
ATACCTTTGGTTAAATAGTCTAGACTAAAAGATTGAGAAGTTACTTTCCATTGCTATCTATTGATAATTTAGACA
TTGAGTTCAAATTCCTTCATTTTATGATAAATAATGATTAACTGAAAA

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FIGURE 189

MDTPPLSDSESESLVTDRELQDAFSRGLLKPGLNVLLEGPKKAVNDVNLKQCLAEFKRDLEWVERLDVTLG
PVPEIGGSEAPAPQNKDQKAVDPEDDFQREMSFYRQAQAAVLAVLPRLHQLKVPTKRPTDYFAEMAKSDLQVQKI
RQKLQTKQAAMERSEKAKQLRALRKYGKKVQTEVLQKRQOEKAHMMNAIKKYQKGFSDKLDFLEGDQKPLAQRKK
AGAKGQQMRKGPSAKRRYKNQKFGFGGKKKGSKWNTRESYDDVSSFRAKTAHGRGLKRPGGKGSNKRPGKRTREK
MKNRTH

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FIGURE 190

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTCCTTTTCTCCGCTGGAGCAGCTATGGCGCGGGTGAAGACCCT
GAACCCCAAGGCCGAGGTGGCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGCGGGGTCTGCAGGA
CGTGCTAAGGACCAACCTGGGGCCCAAGGGCACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACCTTAC
TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAATTC AACACCCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC
AGCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCTAATCATTGGAGAGCTGCTGAAACAGGCGGA
TCTCTACATTTCTGAAGGCCTTCATCCTAGATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA
GTTTTTGGAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAACACTTATAGATGTGGCCAGAACATCTCTTCG
TACTAAAGTTCATGCTGAACCTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA
AGATAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAGCTTAAT
CAGAGGGCTTGTGTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC
TTGTAACGTGTCATTAGAGTATGAGAAAACAGAAGTGAATTCTGGCTTTTTTACAAGAGTGCAGAAGAGAGAGA
AAAACCTCGTGAAAGCTGAAAGAAAATTCATTGAAGATAGGGTTAAAAAATAATAGAACTGAAAGGAAAGTCTG
TGGCGATTGATAAAGGATTTGTTGTTATTAATCAAAGGGAATTGACCCCTTTTCTTAGATGCTCTTTCAA
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAAATATGGAGAGGCTGACTCTTGCTTGTGGTGGGTAGC
CCTGAATTCCTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA
AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCTCGTTCTGTACATTATTGATCAAAGGACCAATAAGCA
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT
GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCAGTGTAAGGGCAG
GGCAGAGCTTGGAGTCCAAGCATTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAACTCTGGTTT
TGACCTTCAGGAAACATTAGTTAAAATTCAGCAGAACATTGAGATCAGGTCAGCTTGTGGGTGTGGACCTGAA
CACAGGTGAGCCAAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC
CTGCACTGTGATTGCCACCAACATTCTCTTGGTTGATGAGATCATGCGAGCTGGAATGTCTCTCTGAAAGGTG
AATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTTGT
CCAAGCTTCAAATAATTTTGAAGAAATTTTCCCATATGAAAAAGGAGAGAACTGGCATCTGTTGAAATTTG
GAAGTTCTGAAATTATAGTATTTTAAAAATTGCACTGAAGTGATACACATAAAGCAGGTCTTTATCCAGTGA
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATTCATGTTAGATAAGCATATGTTACTTACCTTGTATTATTA
AATATTTCTTGAAAGCAAATTTTAAATGGTTAATTTATGTGGACGTATGTTAAATTATCCAACTACCTTATTG
TTAAGCATTGTTGTTTTAAAAATTTTATGCTAATATAAATGCTCAAGTAATTTAAATATTGAAAGCATCCCTGTT
GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTGCTAAATGCT
CCCGCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA
GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGAATAAGGGCCACGGTTATTGGGTGAAATTTG
AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACCTAAGGCAAAATATTATCGCAAAGTCTCTAGCGTCATAT
TTTTCTCACCCAAATTACGTTTCCACGAGTTATTATATAGTTGGTCTATCTCTGCAGTCCCTGAAGGTGAAGT
TGTGTGTTACTAGGCTGTGTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA
CCTCAAAAAAA

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FIGURE 191

MAAVKTLNPKAEVARAQAAALAVNISAARGLDVLRNLGPKGTMKMLVSGAGDIKLTGDGNVLLHEMQIQHPTAS
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEEAKEKALQFLEEVKVSREMDRETLID
VARTSLRTKVHAEADVLTEAVVDSILAIKKQDEPIDLFMIEIMEMKHKSETDTSIRGLVLDHGARHPDMKKRV
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIEKRRKVCSDKGFFVINQKGIDPF
SLDALSKEGIVALRRARRNMERLTLACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL
IKGPNKHTLTQIKDAVRDGLRAVKNAIDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCVTIATNILLVDEIMRAG
MSSLKG

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FIGURE 192

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTCCTTTTCTCCGCTGGAGCAGCTATGGCGCGGTGAAGACCCCT
GAACCCCAAGGCCGAGGTGGCCCGAGCGCAGCGCGGCTGGCGGTCAACATCAGCGCAGCGCGGGGTCTGCAGGA
CGTGCTAAGGACCAACCTGGGGCCCAAGGGCACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACCTTAC
TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAATTC AACACCCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC
AGCCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCTAATCATTGGAGAGCTGCTGAAACAGGCGGA
TCTCTACATTTCTGAAGGCCTTCATCCTAGATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA
GTTTTTGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG
TACTAAAGTTCATGCTGAACCTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA
AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAAGCTTAAT
CAGAGGGCTTGTTTTGGACCACGGAGCAGGCATCCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC
TTGTAACGTGTCATTAGAGTATGAGAAAACAGAGATGAATTCTGGCTTTTTTACAGAGTGCAGAAGAGAGAGA
AAAACCTCGTGAAAGCTGAAAGAAAATTCATTGAAGATAGGGTTAAAAAATAATAGAACTGAAAGGAAAAGTCTG
TGGCGATTGAGATAAAGGATTTGTGTATTATAACAAAGGGAATGACCCCTTTTCTTAGATGCTCTTTCAAA
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAAATATGGAGAGGCTGACTCTTGCTTGTGGTGGGGTAGC
CCTGAATCTTTTGACGACCTAAGTCCTGACTGCTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA
AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCTCGTTCTGTACATTATTGATCAAAGGACCAAATAAGCA
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT
GGTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCAGTGTAAGGGCAG
GGCAGAGCTTGGAGTCCAAGCATTGTGCTGATGCATTGCTCATTATTCCCAAGTTCTTGCTCAGAACTCTGGTTT
TGACCTTCAGGAAACATTAGTTAAAAATCAAGCAGAACATTAGAATCAGGTCAGCTTGTGGGTGTGGACCTGAA
CACAGGTGAGCCAAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC
CTGCACTGTGATTGCCACCAACATTCTCTTGTTGATGAGATCATGCGAGCTGGAATGTCTTCTGAAAGGTG
AATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTGT
CCAAGCTTCAAATAATTTTGAAGAAAATTTCCCATATGAAAAAAGGAGAGAACTGGCATCTGTTGAAATTTG
GAAGTTCTGAAATTATAGTATTTTTAAAAATTCAGTGAAGTGATACACATAAAGCAGGTCTTTTATCCAGTGA
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATTCATGTTAGATAAGCATATGTTACTTACCTTGTATTATTA
AATATTCTTGAAGCAAAATTTTAAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAACTACCCTATTG
TTAAGCATTGTTTTTAAAAATTTTATGCTAATATAAATGCTCAAGTAATTTAAAAATATTGAAAGCATCCCTGTT
GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCCTTGAAATGGCTTTGCTAAATGCT
CCCCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA
GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG
AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACTTAAGGCAAAATATTTCGCAAAGTCTCTAGCGTCATAT
TTTTCTCACCCAAATTACGTTTCCACGAGTTATTATATATAGTTGGTCTATCTCTGCAGTCTTGAAGGTGAAGT
TGTGTGTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA
CCTCAAAAAAA

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FIGURE 193

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTGDGNVLLHEMQIQHPTAS
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEEAAKEKALQFLEEVKVSREMDRETID
VARTSLRTKVHAELADVLTEAVVDSILAIAKKQDEPIDLFMIEIMEMKHKSETDTSIRGLVLDHGARHPDMKKRV
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIELKRKVCGDSKGFVVINQKGIDPF
SLDALSKEGIVALRRARRNMERLTLACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL
IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMAAEVGVWDNYCVKKQLLHSCTVIATNILLVDEIMRAG
MSSLKG

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FIGURE 194A

GGCCCCAATGAGTGGCACACAGTCTACTATCACCGACAGGTTTCCCCTCAAAAAACCTATAAGGCATGGAAGTAT
TTTGAACCGAGAGTCACCAACAGATAAGAAGCAGAAAGTTGAGCGCATTGCATCACATGATTTTGACCCACAGA
TAGCTCCTCCAAGAAGACAAAGTCTAGTTTCCAGAGAGAGTAGATCCGAGATATATGGTCTTGTTACAGCGTTGCGT
AATCATCCAGAAAGATGACAATGGATTTGGGCTGACGGTCAGTGGAGACAATCCAGTCTTCGTACAGTCTGTCAA
AGAAGATGGAGCAGCCATGCGGGCTGGAGTACAGACAGGTGATCGAATCATCAAGGTGAATGGAACCTCTGGTGAC
TCATTCAAATCATCTGGAGGTGGTGAAGCTAATCAAATCTGGTTCTTATGTAGCTCTCACTGTTACAGGACGCCCC
ACCTGGGTGCGCCACAGATTCCACTTGCCGACTCTGAAGTAGAGCCGTCAGTCATTGGACATATGTCTCCCATCAT
GACATCTCCTCATTACCTGGAGCATCTGGGAATATGGAGAGAACTACTAGTCTGTGCTCATGGGGGAGGAAAA
CAATGTGGTTCATAACCAGAAAGTAGAAATTCTGAGAAAAATGTTACAGAAAGAACAGGAACGGCTACAGTTATT
GCAGGAAGATTACAACCGAACACCTGCCCAAAGATTGCTAAAAGAGATCCAAGAGGCCAAGAAACACATTCTCTCA
GCTGCAAGAGCAGTTATCCAAAGCCACAGGCTCTGCTCAGGATGGAGCTGTAGTTACACCCTCCAGACCTTTAGG
GGACACCCTAACAGTCAGTGAGGCAGAAACAGATCCTGGAGATGTACTGGGCAGGACTGACTGTAGCAGTGGAGA
TGCTTCTCGGCCCAGTAGTGACAATGCAGATAGTCCCAAGAGTGGCCCAAAAGAGAGAATTTATCTAGAGGAAAA
CCCAGAGAAAAGTGAAACAATTCAGGACACTGACACTCAATCACTTGTGCGAAGTCCCTCAAACCGTATAGCACC
TCATATTATTGGAGCAGAAGATGATGATTTTGGTACTGAACATGAACAGATCAATGGACAGTGCAGCTGTTTCCA
GAGCATTGAATTACTAAAATCTCGCCCGGCTCATTGGCTGTTTTCTTACACCATGTAGTTTACAATTTGACCC
TGCGACTTTGCTCTGTTATCTCTATTTCAGACCTGTATAAACATACCAATTCCAAAGAACTCGTCGCATCTTCT
TGAGTTTCATCAGTCTTTTCTAGATCGATCAGCACACCTGAAAGTTTCTGTTCTGTATGAAATGTCTGCAGATCT
AGAAAAGAGAAGACCTGAGCTCATTCTGAGGATCTGCATCGCCACTATATCCAACTATGCAAGAAAGAGTCCA
TCCAGAAGTTCAAAGGCACCTAGAAGATTTTCGGCAGAAACGTAGTATGGGACTGACCTTGGCTGAAAGCGAGCT
GACTAAACTTGATGCAGAGCGAGACAAGGACCGATTGACTTTGGAGAAGGAGCGGACATGTGCAGAACAGATTGT
TGCCAAAATTGAAGAAGTATTGATGACTGCTCAGGCTGTAGAGGAAGATAAGAGCTCCACCATGCAGTATGTTAT
TCTCATGTATATGAAGCATTGGGAGTAAAAGTGAAAGAGCCTCGAAATTGGAGCACAAACGGGGTTCGGATTGG
ATTTCTTCCCAAAATCAAGCAAAGTATGAAGAAAGATAAAGAAGGGGAAGAAAAAGGGAAGCGAAGAGGATTCCC
CAGCATCCTGGGACCCACCGAGACCAAGCCGTCATGACAACAGTGAATTTGGCAGAGCCATGGAACCTACAGAA
GGCGCGCCACCCTAAGCACTTATCCACACCCTCATCTGTGAGTCTGAACTCAGGACTCTGCCAAGTTGCGCCA
GAGTGGGTAGCAAATGAAGGAACAGACGCTGGATACCTGCCTGCCAATTCCATGTCTTCTGTAGCTTCAGGGG
CTCTTTTTCCAGGAAGGAGGGAAGAGAAATGATACAGGATCAAAGCAAGTTGGAGAAACATCAGCACCTGGAGA
CACCTTAGATGGCACACCTCGTACTCTCAATACTGTCTTTGATTTCACCACCTCCATTAGACCAAGTGCAGGA
GGAGGAATGTGAAGTAGAAAGGTGACTGAACATGGGACACCAAGCCCTTTGAAAGTTTGACAGTGTAGCTTT
TGGAGAAAGTCAAAGTGAGGATGAACAATTTGAAATGACTTAGAGACAGACCCACCAACTGGCAGCAGCTTGT
TAGTCGAGAAGTGTTACTGGGACTAAAACCTTGTGAAATCAAAGACAGGAAGTGATTAATGAATTGTTCTACAC
TGAAAGAGCTCATGTTGCAACACTGAAGTTCTTGATCAAGTGTCTATCAGCGAGTATCCAGAGAAGGAATTCT
GTCACCCTCAGAGCTACGGAAAATTTTTCAAACCTGGAAGATATTCTTCAACTTCATATTGGATTGAATGAACA
AATGAAGGCTGTTCGAAAGAGAAATGAGACCTCTGTTATCGATCAGATTGGGGAAGATTGCTGACATGGTTTCA
CGGACCAGGAGAGGAGAAATTGAAACATGCTGCTGCTACCTTTTGCAGTAACCAACCTTTGCGCCTGGAAATGAT
CAAATCTCGTCAGAAAAAGGATTCTCGATTTTCAAGTCTTTGTGCAAGATGCTGAAAGTAATCCACTGTGCTCG
TCTTCAACTGAAGGATATTATTCCCACTCAAATGCAAAGGCTTACTAAGTACCACTTCTGTTGGATAATATTGC
CAAATACACAGAATGGCCAACAGAAAGGGAGAAGGTGAAGAAAGCTGCAGATCACTGTGTCAGATCTTAAATTA
TGTAATCAGGCTGTCAAGGAGGCAGAAAACAAGCAGCGCCTAGAAGATTATCAGCGTCGCTTGATACCTCCAG
CCTGAAGTTGTGAGATACCCAAATGTTGAAGAGCTCAGGAATTTGATTAAACAAAAGGAAGATGATTATGA
AGGGCCATTGGTTTGAAGGTGAATAGAGATAAACTATTGATTTATACAGTTGCTGCTGGAAGACATTCTTGT
ATTGTTACAAAAGCAGGATGATAGACTGGTTTTAAGGTGTCATAGTAAGATTCTGGCATCTACAGCTGATAGCAA
ACACACGTTTAGCCCTGTCATTAAAGTTGAGTACAGTGTGGTTTGCACAAGTGGCAACAGATAACAAAGCTTTATT
CGTCATTTCCATGTCAGACAATGGCGCTCAGATTTATGAAGTGGTGGCAGACAGTTTCTGAAAAGACTGTCTG
GCAGGACCTAATCTGTCGGATGGCTGCATCAGTGAAGGAGCAATCCACAAGCCAATTCCATTACCACAGTCAAC
ACCTGGCGAAGGAGATAATGATGAAGAAGATCCTTCAAATTAAGAGAGGAGCAGCATGGCATTTCAGTCACTGG
TTTGCAGAGTCCAGACAGAGATTGGGATTAGAATCTACCTTAATATCGTCAAAACCTCAGTCTCATTCACTGAG

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FIGURE 194B

TACCTCTGGGAAATCAGAGGTACGTGATCTGTTTGTGGCTGAGAGACAGTTTGCAGGAAACAACATACAGATGG
GACACTAAAGGAAGTTGGAGAAGATTATCAAATCGCAATCCAGATTACACCTGCCTGTCTCAGAAGAACGGTG
GGCATTGGATGCACTAAGAAATTTGGGTTTGTGAAGCAGTTGCTGGTGCAACAGCTAGGTTTGACTGAGAAGAG
CGTTCAGGAAGACTGGCAACATTTCCCAAGATACAGAACAGCCTCTCAGGGGCCGAGACAGACAGTGTATCCA
GAACTCTGAAAATATTAAGGCCTATCATTCTGGTGAAGGACATATGCCCTTTAGAACTGGAAGTGGTGACATTGC
AACTTGTACAGTCCACGGACTTCAACTGAATCTTTTGCTCCACGGGATTGAGTGGGACTGGCACCCAGGATAG
CCAGGCAAGTAACATTTTAGTAATGGACCACATGATTATGACCCAGAGATGCCCTACCATGGAGCCAGAAGGGGG
TCTTGATGACAGTGGAGAGCACTTTTTGTATGCCGTGAAGCACATAGTGATGAGAATCCATCAGAAGGTGATGG
AGCAGTTAAACAAGGAAGAGAAGGATGTTAATTTACGCATCTCAGGAACTATTTGATCCTTGATGGCTATGACCC
AGTGCAGGAGAGTTCCACAGATGAGGAGGTTGCTTCCCTCACTTACCCTGCAGCCCATGACAGGCATCCCTGCTGT
GGAATCCACCCACCAGCAGCAACATTTCTCTCAGAATACTCACTCCGATGGGGCAATTTACCAATTACCCCCGA
ATTTCTGGTCCAGCAGCGCTGGGGAGCTATGGAGTATTCCTGTTTTGAGATCCAGAGTCCCTCCTCTTGTGCAGA
TTCACAGAGCCAGATCATGGAGTACATTCATAAGATAGAGGCTGACCTTGAACACTTAAAGAAGGTGGAGGAAAG
TTACACCATTTCTTGCCAAAGGCTGGCTGGATCAGCCCTCAGAGACAAGCACTCAGATAAAAGTTAGAGCCGCAT
GTCCTGGAGGTGACTGCAGGTTGTTGGATTGGAGTATCGGCCGTGTCTCACCACATCTGGCTCCAGTGTGGAT
GCAGAGAGAGTGTGACAGAGGATCTGCCTGTGAACCCTGGGATTAGTCAAGTCCCAAGGTGCCAGAGTGGGA
CTAGTTCTTTCAGTGTGGCAGCTGACTAATCTGTTTGTGAGGGAATATCCATTCCCTCACTCTACTCTCTCTCA
CTATCGGAAATTCATTTTGATTGAGATAAAACCCTAATGTATAGAGCTTTGGGTGTAGATATGAAATTGTACT
TAGATTTAAGAAAAAGAGAAATCAGATGTATTTATTTGACTTCATTCCGTATTTGAAAGCACATTTTAATTTTT
ATTTGCCCTTGTTTTGTTTTAATTGAGTAGTGAGAGTTTTAGACCTTTGCTTTAGTACACCAAGGATCAACTGC
TCCTGAAGCAAAAGGTCAGGATGGAGTATGCAGAAGTTGGGTAGAGAGGTTAAGAAGAGGAGGAAGTGAGACGG
GGAAGGGAGGAGCACCTTGCTTCACTATACAGTATTCCAAGCTCTCTGCTGTCCAGTAGGCTGCTTCTCTGAGGG
TCACCTCAAAGGTATGCTATGCCGTGTGGCTCTTATGIGCCAGGTGGTGTGGTCAGAGAGTGGATGGGCTTCCT
CCCGCCTGAGGCAAGCACCTCTTCTCTGTAGCTGGGATCAACCACAATTAATAGGAATCTCAACATACTAAAT
AGCAGGCACCTTGAAAATGGGTGTGTTTTCTTCCATTGTCGCTTTTTCTATTGAGGGTTGGGATTGGGTGGGAGA
GGAAAGCAAATTTTATTTCTTGACTATAAATTTGTTATTTCTTGGTATCATTTCATTTTTATAATTATACATTAG
ACATTGACACTTGTGTAAAATGTCCCTGCAGATTGAGCAGGAAGTAAAAACAAATGGAATGCTTCGGATAGTG
GCAGGGGTGGGGGTTGCTAAGGAAAGGGTGGGATGGGAGTGGGTAAAGAGTTTGGGAAGGTTATCTAACTGAATC
ACTACTGAGTTGAATCATGGCTATCATTAGCCACAGGTACTGCTGATTATAAGGCCAGTAAATTTTAGTACCTG
GAGGTTTGACTCTAATTTTGCAGTGTGGTGCCAAAGGGCCCTGAGTCAAAGGATAGCCAAGGGTGGAGTGGGA
AAAAGATATGGTGAAGGCAGAACTGCTCACACCAGCTCCAGAAGCACGTCTCTGACTTCACTGCCGAGCTCTT
TCCACACGGGGCCGTGATTGACCCTAAAAATTGCAGACCAGCACATACACTGGACACTGCAGGCAAGGTGTTGGT
AACTGCCTGCTCTAGGATGAATAGTAGCGTTAGCAGCACCTACAGAGGGTAAGTTTCAAGATTTGTAATTTGAGA
ACTCCTTCAATTATATTGACTTTCTTTGGTTTTCTTGTGCATTAGGTATATATTTTTTGAAGTATTTTTGCCAA
CTAAATGAAGTCTGTAAATCTGTAAATAAACAAGGAGTTTATCCGTTGCTCACATCTTTTATTGGTGCCCTCT
GAACTCTGTGGGTGCTAGGATGTAATTTTAAATGCTTCCCTGCAGTCCAAAGATGATTTTTTACCACAAATGGT
AAGGGATGCCACCTACTTTTATAAACACCACTGCAACTTAACAAGTTTATTTATCTATGTCCAGATTTCTGTTT
CTGTCTAAATTGATCTGTGTTTTTAGGTGGATCAACTTGAATCTTAGACCTCATCTATAAATTGAAATTATAT
TTTTAGTCATAAGCCAAGTACAATCTAACTCAGAATGGGATTAATAATTTTAGAAGCAGAAGCTAATATATAAAT
GAAGTTTGGGATTGGAACCTTCTGTATCTCTTAGGAGGAACAAGTAAAAACCAATGGTTACATTGTGCTGCTA
GAAATAATGTCATTCTCAATTAAGGGTTACACCTGTAGCCACTTGACACTAACACCATCGAGGGCAATTAATC
AGGAGAAAAGTAAATATAAAAACTTTGCTCTTAACGTACACACTACAGGGTAATTATGTAATTCTCTAGCACTC
AATTAAGAAGCTGTAGGTTAGCAAAATTTAGTTTCTCTAGTTTCAAGCCAGTGTCTGTCTTATGTAATTTATTTG
CTTTCCCTGCAGTTCAATTTCTCTTGGAACTCTAACAGGACTAACTGGAAAAATACTTTGACCATAGCTCTAGT
ACTTCCAAATAAATTCATATCTAGATTTTCAAACAAAGCCCCAAGATGAAGTCTAATCTGAAAATATCTCACAA
TTTTTGAATGTTCTTTTTATCTTACCGACCTAATCTCTTTTTCCCTCCCAACTTGGCCTCCACACGTCCATT
TCATTTTGGCCATTATAGTCACATCCGTTTGACTTTGGTTGTGACATCTTCTTTTCCAGGATGATGGAATTAGATG
CAGTCTGTCTTTGAGTGAGACTGGTCACCATCAGAGGAGTTTTTTCTAAGTGACGTGACTAGAAGTTGAAATCTA

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FIGURE 194C

CTTCCCTGCTAAAGGGCACAGGGGTGGTGTACAAAGAAAGCTACCTTCCCAGAGCAAGCAGGCTGCATTTTAGCT
ATGGAAGTGACCTGCTGTGACACTGTGCTCTCTTCTGTGGGCTTAATGGTTCCTTTGCTATGAAGTGGCAAATTA
CAIGTAGAGTGTCTCCTTCCTTTTCAGAGAACAGTTAATCAAGGCAAATCAGCAAGCCCCCAAAGTGCTGTAATT
TAACATCATGATTACCACCTTCGAAGCTATATATTTTGCATACCTTAAATCACCTAACTTGGACTGCTTGAATT
ACATTGGCTTTTAGAACCGAAATTGTAAGTATGTATTGTATTTCATGGGAGGTATATTTTATGAGCTTTTGGCT
TTCTTTTTTCCCACAGCAACTGCCAATGAAGGATGAATCCCCCTTTTAAAAAGTTGTTGTTGTTGTTTATTT
GATTTTGTAGTTAGGAGGGATAATAGAGAAGTCCATTTAAAAATTATTTTATAGAAGCTAAAGAAAGTAATTATGCT
TCCTGTGAATTGTCTTTTACTGGCACTCTTTGTTTTCTCTTTGATGTTAGTAAATTTGGTGTAAATACGTGGGGCT
TCCATATTTCAAAGTGAAGCTTTCTTCTCTGAAGTCGATATATGGTTTTGAATTACTAGAGCTTTGGTCAGTAT
TTCCTTCCCTATATGTACAGAGGGCACCAGTGAAGTGCATAGGACCTCAAAATACAAAATTAGCAGGG
CCTCACAGTCAGCTTCCTCATGGCTAGTTTTTCCCCCTTATATTACAATTTTGTATTTATAAGTCATTTTTTCC
TGATATTTCCACCACCTTTTCAGAGTCATCTACAAAATTTTCTTCTCAAGAAAAGAGTTCCTTTTGCCTTATT
CCTTATGCCCTTCCCCACTGGTATTGAGGGTTTTGATAATAAATTGGTAGGAAAAAAGTACCTCCTAGAAGGAA
GCCCTCCCCACCATTTCCAGGTGCCAAGTGAAGCAGATATATCCAAAAATGGTAAGTGCATGTGCACACTG
TTGGTTATTTTTAATAAGCCTCTTCTACTAGAACATTTTATTTTCTTGTTCACCATAAATCATGTACTCTTT
AACAGAAATTGCTTTTAAAAAATATCTGGAAGTATCTTTAAAAAACTTTATTAATAATCATGTATTTTTACTGA
TCACATTTTGAATGCCTAAAGACTTTATTGTTCTAATTATCCAGATGTACCTTTGTAAATAGCTCTTTTATG
AATTAGCTGATAAGGCTGTATGTTTCTGGAACAAAATATTGGTCATCTAAAAACTTTCTGTTTTCTGGGGTCTGG
GAAAATAGAAAATAAGATTTCAAATATTAAATAAGCTTAAAGGAACCAAGCATGTGACTTTTACTTTGTATTCTG
GTTGATTTGTCTTGTCCAAGTTATATTAGAAAAGTTGAGGAGTCGAGGAGCCTGTAATTAATTTTCTGTCAAGT
ACTGTCAGACATCTTCTGCTTATTAGAGCATCCCTAGCAACAAGGCTAAACCTTCATGACAGTGCTGGCAGGTG
GGCTTGGCCTAGCATGTGGGGCAGGTTTTGTTGTTTTTTAATAGCTTTATTGAGATATTCACATATCATATAATT
CATCCATTTAAAGTGTATAATCAGATGGGTTTTGGTATATTATTGATTTTTAATTGTGGTGAATATATATATAA
CAAAATTTGCTATTGTAAGTATTTTTAAGTATAAAGTTCAGTGAGGTAGGCCAGCTTTTATGACGCACCTGAAGA
TAACCTTTGGTTTTAATCCTACCCTAAATGAAGCATATGCCTCTATTTTTCTGTCCCCAGTGTGGGCTTCTTCA
CATACCAACATTTCTGTGCTTTTACCAACAGCATTTTAGCTCAGAAGGCTCGCTTACTTTGGGCATTTGCTGTAT
TTTGGTTTTGAAATACTTGTAATTTGACTTATTCTTGGGATAATATTTTAGTTTTAGTTCAGTCATTCAAGGGCACATT
TGGCTGACGGAGCTAATAAGCGTAATAAAATGCTTAGTAGTTTATACCATCTTTAGTTAAACATTTTAAAGATT
AAGACTATTCAAATGTACTTTGCGGAAATTAACCTGTTGTATGCCTGGCTTTGTTTACAAACATATATCTATAT
CTATATATATAGATACAGATACAGATACATATCTGGTGAACAAAGAAATACCTGTACCATTCCCACTTGCTCTT
TGATAGCCACCTCCTAGGAATGGAGACAATAAACTCTGTATTTCATGTG

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FIGURE 195

MSGTQSTITDRFPLKKPIRHGSI LNRESPTDKKQKVERIASHDFDPTDSSSKKTKSSSEESRSEIYGLVQRCVII
QKDDNGFGLTVSGDNPVVFVQSVKEDGAAMRAGVQTGDRI IKVNGTLVTHSNHLEVVKLIKSGSYVALTVQGRPPG
SPQIPLADSEVEPSVIGHMSPIMTSPHSPGASGNMERITSPVLMGEENNVVHNQKVEILRKMLQKEQERLQLLQE
DYNRTPAQRLLKEIQEAKKHIPQLQEQLSKATGSAQDGA VVTPSRPLGDTLTVSEAETDPGDVLGRTDCSSGDAS
RPSSDNADSPKSGPKERIYLEENPEKSETIQD TDTQSLVGS PSTRIAPHIIGAEDDDFGTEHEQINGQCSCFQSI
ELLKSRPAHLAVFLHHVVSQFDPATLLCYLYSDLYKHTNSKETRRIFLEFHQFFLDRSAHLKVSVPDEMSADLEK
RRPELIPEDLHRHYIQTMQERVHPEVQRHLEDFRQKRS MGLTLAESELTKLDAERDKDRLTLEKERTCAEQIVAK
IEEVLMTAQAVEEDKSSTMQYVILMYMKHLGVKVKEPRNLEHKRGRIGFLPKIKQSMKKDKEGEEKGRRGFPSI
LGPPRRPSRHDNSAIGRAMELQKARHPKHLSTPSSVSPEPQDSAKLRQSGLANEGTDAGYLPANSMSVVASGASF
SQEGGKENDTGSKQVGETSAPGDTLDGTPRTLNTVDFPPPPLDQVQEEECEVERVTEHGTPKPFKFD SVA FGE
SQSEDEQFENDLETDPNWOQLVSREVLLGLKPCEIKRQEVINELFYTERAHVRTLVLDQV FYQRVSREGILSP
SELRKIFS NLEDILQLHIGLNEQMKAVRKRNETSVIDQIGEDLLTWFS GPGEK LKHAATFC SNQPF ALEMIKS
RQKKDSRFQTFVQDAESNPLCRRLLQKDI IPTQMORLT KYPLLLDNI AKYTEWPTEREKVKAADHCRQILNYVN
QAVKEAENKORLEDYQRRD TSS LKSEYPNVEELRNLDLTRKMIHEGPLVWKVNRDKTIDLYTL LLEDILVLL
QKQDDRLVLRCHSKILASTADSKHTFSPVIK LSTVLVRQVATDNKALFVISMSDNGAQIYELVAQTVSEKTVWQD
LICRMAASVKEQSTKPIPLPQSTPGE GDNDEEDPSKLKEEQHGISVTGLQSPDRDLGLESTLISSKPQSHSLSTS
GKSEVRDLFVAERQFAKEQHTDGT LKEVGEDYQIAIPD SHLPVSEERWALDALRNLGLLKQLLVQQLGLTEKSVQ
EDWQHFFPRYRTASQGPQTD SVIQNS ENIKAYHSGEGHMPFRTGTGDIATCYSPTSTESFAPRDSVGLAPQDSQA
SNILVMDHMIMTPEMPTMEPEGGLDDSGEHFFDAREAHSDENP SEG DGAVNKEEKDVNLRISGNYLILDGYDPVQ
ESSTDEEVASSLTLPMTGIPAVESTHQQQHSPQNT HSDGAI SPFTPEFLVQQRWGAMEYS CFETQSPSSCADSQ
SQIMEYIHKIEADLEHLKKVEESYTILCQRLAGSALTDKHS DKS

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FIGURE 196

GAGTTCCAGCAGTCCGCGAGCTGCCGTGGCTCCGCGGGGGGGCGGGCCGGGCACCCCGGGGCGCGGAGGAGCG
CTCCTCGCTTCTCTCCTTCCCCCTGCCGACTCCGCGGACCTCCCGCGGGCCCGCGCCGCTGCACTCGCCCT
CTCCTCTCGCCCCCGGCAAACTTTGGGCCCTCCCCGCCCTCGCCCGTTATTGTCGTGGCTCAAGCCCGGCC
ACGCCGCCCCAAGGGCTCCTCCGACCTCCCGGCTGCCGCTCCGGCCACTGCGGGATCCAGAAACATGTCGACC
ACACTTCTGTCCGCTTCTACGATGTCGACTTCTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC
AACATGCTGGACAAGAAGGCGGTGGGGACGCGTGTGGCCGCCGCCAGCTCGGGCTTCGCGCCGGGATTCTC
CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCACCCCGCGCCAGCCCGGCGAGCTGCTCGCCCAAGTTC
CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGGCGGCCGGTCCGACCTCCTACGGCACCTTAAGGAG
CCGTGCGGGGGCGGGCAGCCCTGCTCAACAAGGAGAACAATTCGGGACCGCTCGTTTAGCGAGAACGGC
GATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAGAGAAGGGGGCGGGCGGCTCCAGATCAACTCCACGCGC
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTCGCGCAT
GGCTTCCACGAGCTGCGCAGCCTGACTCGCATCCGAAGTACAAGACCGAGCTGTGCCGACCTTTTATACCATC
GGCTTCTGCCCCATGGGCGCGCTGCCACTTCATCCACAACCGGACGAGCGGGCGGCCGCGCGCTCGGGGGG
GCCTCCGGGGACCTGCGTGCCTTTGGCAGCGCGATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCAAG
TTGACACACAGCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCGGGGCGGCTCGAGTCGCGCTG
CTGCTCGACAGCCCCAGCTCGCGCAGCGCGCGCCCTCCTGCTCTTCGGCCTCGTCTCTCTCTCCGCC
TCTCTCTGTTCTCGGCCTTCGCGGCTTCCACGCCCTCGGGCGCCCCGACATGCTGCGCTCCGCGGGCGGCCG
GCTGCGGCGCTCTGCTGTACGGCACCGGGGCGCCGAGGACCTGCTGGCGCGGGGGGCGGCTGCGCGGCTGC
TCGTGCGCCTCGTGCGCCAACAACGCCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATC
CAGACCCACAACCTTTGCCCGCTGGCCGCCCGCCCTACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGGCCTG
GCGCCCCCGCGCAGCCCGCGCGCCGCGCCAGCGCGACCTCCCGCGGGGGCGCGCACCTCCCTCGCGGCC
TTCAGCTTCCAGCTGCCGCGCGCCTGTCCGACTCGCCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTG
TCGGACCGGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGAC
CCTGGCGCGCGCTGCCAATCTTCAGCCGCTCTCATCTCCGACGACTGAGGCAAGAGGGCGCCAGTGAGGAGG
AAGGGAAGGCGGTTAGAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGTGGGGGACGGGAGTGGGGG
GGTGACATGGGCCCTAGGCAGACTGCAAGCCGACCGAGCACTGGACTCGAACTCTGTGCCGGAGGGGCCCC
ACCCCTCCTTTTTCGGTTTCTCTTGTCTTTTTTTTTTTTATTACGAAGTTTATTCTTTTTGAGCAAAA
AAGTCGAACTTTTCTGTTGAACAAAATATTCACAACAGGGCAGTTGTGATACGAATAGAACAAAAAAAAAAAA
AAACACTTAACTTTGTTAGGACTCCGATGAGTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA
ACCACCATTCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCTTCTCTTGAAGAAGTTC
CTAATTGTGTCTCAGACCGGTGTAAACAAACCAGCCAGCGCCACCTTGCTAAACCTATAAGCTTTTAAATCC
AATATATTCTGCCAAGAATATGCCTTGATAGTTAGCCCTCAGCCCATAGGTGTTTTTGTTTTTTAAACAGAATTA
TATATGTCTGGGGGTGAAAAAACCTTGCAATCCAAAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTA
GTGGATGTTCAAGTTTGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA

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FIGURE 197

MSTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCS
PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQIN
STRYKTELCRPFEESGTCKYGEKCQFAHGFHELRLTRHPKYKTELCRTFHTIGFCPYGPRCHFIHNADERRPAP
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFP SGHHQPPGGLESPLLLDSPTSRTPPPSCSSASSCS
SSASSCSSASAASTPSGAPTCCASAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP
LAIQTHNFAAVAAAAYYRSQQQQQQGLAPPAQPPAPPSATLPAGAAAPPSPPFQLPRLSDSPVFDAPPSP
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLP IFSRLSISDD

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FIGURE 198A

CAGATTACGAGGTTCTGTTCTAGTGCCAAAGGCTCTTGGTAGTAAATAGTGAGCAAAATAGATACCTGTCTCCT
GATGGATCTTGCCAGCCCNCTCCTATTTTNTTAAGTTATTTATTAACACACACACCTTGCAAAGAAAA
GGGAACTGGCAGTCTCTGTAGAGGAAGCCGGTGGCAICGCTCAGAGCCACAACTGTATTTCTAAACAGCCCTT
TCCCTGGTTCCTCTCTCCTGCCCCACTTTTTTAAATCCAGACTGTAAAAAACACATCTACTGACACTCACTT
TACITTAAGAAAGAGAAAAAGTAAAGCGTTACAAGACTTTCCTCCTGGAACTATAAACTGAAAAAAAT
CCATAAAGATTAAATCCTGGCGGGTTGTGGGGTGGCGGGGCGCGGGGAGGGGGCGCGGAGTGGAGATTGGC
TCTCTGAGGTGGTCAGGGGCCCTGTGACAGCTTGGGACTTTCAGCACCTGGTTTGGGGTCATTATCTGCTCAAC
TGTCAGGACCCCCACCCCAAACCCAGCCACCAACACAACCATCGTAGAAGGGAACACAACACAGAGGGTCTT
TTTTCAITTTTTTAAAAATCGGTTTGGTTGTGTTTTTGTTCATGGGGGAGCTTTAAACTCATTATTGCAA
CACTAGTTCATTTTTTCGCCAGGGTTCCAATAACACGGCATCATAAAGGCAACGCAACCCACAGTTCTCAAGACA
TTTACCAGGTCACTACATCCGGCAGCGGGGTGCCCCCTAGCTCCTGCTGCCCCCGCCCTTTCTCCCCGCGCG
CCCCGGAGCTCAGCCGATTCTGAGGCTCCAACCTACCCACTCCCTCCCCGGGCGCGCGCGCGCCTTCC
CCCATCTTACTCCCTCGAGGAGAGCCACAGGTGCAAAATCCAACCAACCTCGCAATCTATTTTTGCAAAATCAC
TCACAAAGATCTCCCTTTTCGCGCCCGCGCCCGCTCCTCCCGCGCGGGTCCCCTCAGCCACGGCCACAAAGTGCC
CTTCTCTCCTCCTGAGTCTTGACATAAGGAACGCGGGCTGGGGCTCTGTTCTGTTCTTCTCCTCGCCCAAGGTAA
GGACCTCGGGAATCTGAAGCCTGGCGTCCACTACGCTCAGGCCCGCAGTTCCCTTTTACAGAGCTTGCAACATG
GGAAAAATAAAATAAAATTTAGGAAAGGGAGGCAACAGCCATTGGGAGCCAACACAGAGTCACGCAGCGCCAA
AATACAAACACCGCAGCGCCAGAAATCCCGCCACCTTTCTCGTTCTCCAGGCTGTCTGTGAGGTTCCCTGA
GTCCCCCGCAGCTGAAAGGCATCGCAGGTGAGTGCACACCCCTTTCCACCCACCCCAAGAAGCCCTGTCCC
GCCATCAGTCTCTCTCCTCGGATGAGCAGGGAGAGCGCGCGGAGGTTCCCGACTCCCTCGACTACAACCAAGAA
AGAATAATTTTTCAAAGTGTTCAACATCCCGCCCCCAAGCTCCCCAAAACACAGGGGCAGGGAACACCAAAACAC
TCGGCTCTCGTTAGGAAGATCAGCGCTCTGAAAGGAAATAGTAGACACGATACTTCATCTCATCTGGATTATGA
CCAAAAAAACAAAAACAAAAACCCAAAGAGTTGCTTGCATTTTTTCTTCCAAATCTCGGTTGCGCTCGAAGGC
AGGGAATCTAAAAGACCGAGGCCGATGGAAGAGAGCCAGCGGGGCGAGCGAGCGGGCAGCCTCCCTTTTTGCCTC
CCGAGTCACCCGTATTTCGTCTGTGCTCAAGCCCGGCCACGCGGCCCAAGGGCTCCTCCCGACCTCCCGGCCCT
GCCGCTCCGGCCACTGCGGGATCCAGAAACATGTCGACCACACTTCTGTCCGCTTCTACGATGTCGACTTCTTG
TGCAAGACAGAGAAATCCCTGGCCAACTCAACCTGAACAACATGCTGGACAAGAAGGCGGTGGGGACGCTGTG
GCCGCCGCCCCAGCTCGGGCTTCGCGCCGGGATTCTCCGACGGCACTCGGCCAGCAACCTGCATGCACTCGCC
CACCCCGCGCCAGCCCGGCAGCTGCTCGCCCAAGTCCCGGGCGCGCTAACGGCAGCAGCTGCGGCAGCGCG
GCGGCCGGCGGTCCGACCTCCTACGGCACCTTAAGGAGCGCTCGGGGGCGCGGCACAGCCCTGCTCAACAAG
GAGAACAAATTCGGGACCGCTCGTTTAGCGAGAACGGCGATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAG
CAGAAGGGGGGCGCGGCTCCAGATCACTCCACGCGCTACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGC
GGCACGTGCAAGTACGGCGAAAAGTGCCAGTTGCGCATGGCTTCACGAGCTGCGCAGCCTGACTCGCCATCCG
AAGTACAAGACCGAGCTGTGCCGACCTTTCATACCATCGGCTTCTGCCCTATGGGCCGCGCTGCCACTTCATC
CACAAACGCGACGAGCGCGGCCCGCGCCGTCGGGGGGCGCCTCCGGGGACCTGCGTGCTTTGGCACGCGCGAT
GCGTTGCACTGGGCTTCCCGCGGGAGCCGCGGCCAAGTTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCG
GGCCACCATCAGCCCCGGCGGCTCGAGTCGCGCTGCTGCTCGACAGCCCCACGTGCGCACGCGCGCGCGCG
CCCTCCTGCTTTCGGCTCGTCTCTCTCTCCTCGCCTCCTCCTGTTCTCGGCTTCCCGGCTTCCAGGCC
TCGGGCGCCCCGACATGCTGCGCCTCCGCGGGCGCGCGGCTGCGGCCGCTCTGCTGTACGGACCGGGGGCGCC
GAGGACCTGCTGGCGCGGGGGCCCCGTGCGCGGCTGCTCGTGGCCTCGTGGCCAACAACGCTTTCGCTTC
GGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATCCAGACCCACAACTTGCCGCGGTGGCCGCCGCCGCC
TACTACCGCAGTCAGCAGCAGCAGCAGCAGGCGCTGGCGCCCCCGCGCAGCCCGCGCGCGCCAGCGCG
ACCCTCCCGCGCGGGGCGCGCACCTCCCTCGCGCCCTTTCAGCTTCCAGCTGCGCGCGCGCTGTCCGACTCG
CCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTGTGCGACCGCGACAGCTACCTAAGCGGCTCCCTGAGC
TCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGACCCTGGCCGCGCGCTGCCAATCTTCAGCGCCTCTCC
ATCTCCGACGACTGAGGCAAGAGGGCGCCAGTGAGGAGGAAGGGAAGGCGGTTAGAGATGTTGGAGGACACCCC
TCGCCATCTCGCCCTTGTGGGGCACGGAGTGGGGGGGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACC
GAGCACTTGACTCGAACTCTGTGCCGGGAGGGGCCCCACCCCTCCTTTTTCGGTTTCTTGTCTTTTTT

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FIGURE 198B

TTTATTTTATTACGAAGTTTCATTCTTTTTGAGCAAAAAAGTCGAACTTTTCTGTTGAACAAAATATTCACAA
CAGGGCAGTTGTGATACGAATAGAACAAAAAGAAAAAAAACACTTAACTTTGTTAGGACTCCGATGAGTTT
GGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCAACCACCATTCCATCTCTTCACTTGAACAGCATTAG
TTAAGTCCAGATGTGGGAACCCCTTCTCTTGGAGAAGTTCCTAATTGTGTCTCAGACCGGTGTAAACAAACCAGC
CAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAATCCAATATATTCTGCCAAGAATATGCCTTGATAGTTAG
CCCTCAGCCCATAGGTGTTTTTGTTTTTTAACAGAATTATATATGTCTGGGGGTGAAAAAACCCCTGCATTCCA
AAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACCTTAGTGGATGTTTCACTTTAGAACCATTTTGTCTGCTCC
CTCTGGAAGCCTTGCGCAGAGCTTACTTTGTAATTGTTGGAGAATAACTGCTGAATTTTAGCTGTTTGAGTTG
ATTGCGACCACCTGCACCACAACCTCAATATGAAACTATTTAACTTATTTATTATCTTGTGAAAAGTATACAATGA
AAATTTTGTTCATACTGTATTTATCAAGTATGATGAAAAGCAATAGATATATATTCTTTTATTATGTTAAATTAT
GATTGCCATTATTAATCGGCAAAATGTGGAGTGTATGTTCTTTTACAGTAATATATGCCTTTTGTAACTTCACT
TGGTTATTTTATTGTAAATGAGTACAAAATCTTAATTTAAGAGATTGTATGTAATATTTATTTTATTAAATTTCT
TTCCTTGTTTACGTAAATTTTGAAAGATTGCATGATTTCTTGACAGAAATCGATCTTGATGCTGTGGAAAGTAGTT
TGAGGAACATCCTATGAGTTTTCTTAGAATGTATAAAGGTTGTAGCCCATCCAACCTCAAAGAAAAAATGACCA
CATACTTTGCAATCAGGCTGAAATGTGGCATGCTTTTCTAATTCCAACCTTTATAAACTAGCAAAAAAGTGTTCG
TTATTCCACCACTTCTACTGTGACATACTCGAGTATAAAGACATGTAGCAATAACGGGGAGTGGGGGGGAGTCT
CACAGTGCCTTTGGAAGGGCCGAACCTTGCCCTTAAATCTTCTCAACCAAAATAAGTATTTTATTAGTGCTTGAGA
GAATCTGAATGTAGGATGGGTTCACTGCACAAAAGGAAAAGATTTTACCACCTTTTTTATATAGATATAAAGT
GAAGCAACCGCCTTAGTGCTGAAATATGTAGTACATGAATATGCCTTGTTTAATTACAGAAAAATCCAAAACCTG
TACTATTTTTTTTTTCCATGTAGAAAGGCAGGAATGTCTCCTAAGCTTTCTGGACAGCAGATGAATGAGCGGTA
GCTTAGTTTGTACGTAGGTACAGTTGGAGCACTATATGTACTCTCTGGACTACTTTGGACAGAAGTAGGTTTTT
GAATGTAACAAGATAAGTCAACTTGAGTTGTAATATATTTTGGGGAATCAGCTCACTACAAATGTGACTGTAAA
CATTGTACTGTAAATGTTTTGTAGTTTTCCCCCAATAAAATTTTGGGAAAAAAGGTATTAACATGTAAGAGCT
TTCTTTTTAAACAGGAATGTCTTAGCTTTCTAGCTTCCAGCTAACCATGTCTGCCATTCCCAGGTCTTGGCAT
GGTGGGGGAGGACTTGAGAGCTGGCAGAGCCAGAGTTCAGAAGAGCCTGCGTCCTCTCAGCCCGTATATATTTT
ATAAGCAAGTTCTTCTAATGAAAGAAAGTAATTATTTGGACTGTCAAGGGCATTAGTT

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FIGURE 199

MEESQGERAGSLPFCLPESFVIRRGSSPATPPQGLLPTSRPAAPATAGSRNMSTLLSAFYDVDFLCKTEKSLA
NLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCSPKFPGAANGSSCGSAAAGGPTSY
GTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQKGGGSQINSTRYKTELCPFEESGTCKYGEK
CQFAHGFHELRSLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAPSGGASGDLRAFGTRDALHLGFPR
EPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCSSSASSCSSASAASTPSGAPTCCA
SAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITPLAIQTHNFAAVAAAAAYRSQQQ
QQQLAPPAQPPAPPSATLPAGAAAPPSPFQPRRLSDSPVFDAPPSPDLSLDRDSYLSGSLSSGSLSGSE
SPSLDPGRRLPIFSRLSISDD

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FIGURE 200

GTCTGGAAGCAGGACTGCGCCGCTCTTCTCAAGGTGGGGTTTCGGGGGGCCACCGAATCGCTGTACGCCGGC
AGGTTGAGAACAAAAACATGCACCTGGAGTTTCCCGGAGCCCTCTGCGTGTTGAGCTTCGGTGGAATTCGGG
GCTCTTGGCTGCCAGCCGCGCTTGCTGGTAGCAACAGAAACAGTCCTGCTCTCCTCCGTGGACATTTTCATTAC
CATCCAGAAGTGTCTCCCACTGAAGGCATCCGTGGTTGTTTTTAAGCCACAAAAAGCCACACCCAAGATCACCT
GACACCCACCCTGACAAGTGTCCATGATGCTGGGCCCTGAGGGAGGTGAAGGCTTTGTGGTCAAGCTCCGTGGCC
TGCCCTGGTCTGCTCTGTTGAGGACGTGCAGAACCTCTCTGACTGCACGATTTCATGATGGGGCCGAGGTG
TCCATTTTCATCTACACTAGAGAGGGCAGGCAGAGTGGTGAAGCTTTTGTGAAGTTGGATCAGAAGATGATGTAA
AAATGGCCCTGAAAAAGACAGGGAAAGCATGGGACACCGGTACATTGAGGTGTTCAAGTCCACAGAACCGAGA
TGGATTGGGTGTTGAAGCACAGTGGTCCCAACAGTGCCGACAGCGCCAACGATGGCTTCGTGCGGCTTCGAGGAC
TCCCATTTGGATGCACAAAGGAAGAAATTGTTTCAGTTCTTCTCAGGGTTGGAAATTGTGCCAAACGGGATCACAT
TGCTGTGGACCCCGAAGGCAAGATTACAGGGGAAGCGTTTCGTGCAGTTTGCTCGCAGGAGTTAGCTGAGAAGG
CTTAGGGAAACACAAGGAGAGGATAGGGCACAGGTACATTGAGGTGTTTAAAGAGCAGCCAGGAGGAAGTTAGGT
CATACTCAGATCCCCCTCTGAAGTTTCATGTCCGTGCAGCGCCAGGGCCCTATGACCGGCCGGGACTGCCAGGA
GGTACATTGGCATCGTGAAGCAGGCAGGCCTGGAAAGGATGAGGCCTGGTGCCTACAGCACAGGCTACGGGGGCT
ACGAGGAGTACAGTGGCCTCAGTGATGGCTACGGCTTACCACCGACCTGTTTCGGGAGAGACCTCAGCTACTGTC
TCTCCGGGATGTATGACCACAGATACGGGCACAGTGAGTTACAGTGACAGACACCACAGGCCACTGTGTCCACA
TGAGGGGCTTCCGTACAAAGCGACCGAGAACGACATTTACAACCTTCTTCTCTCTCAACCTGTGAGAGTCC
ATATTGAGATTGGCCAGATGGAAGAGTGACGGGTGAAGCAGATGTTGAGTTTGCTACTCATGAAGAAGCTGTGG
CAGCTATGTCCAAAGACAGGGCCAATATGCAGCACAGATATATAGAATCTTCTTGAATTCAACAACAGGGGCCA
GCAATGGGGCGTATAGCAGCCAGGTGATGCAAGGCATGGGGGTGTCTGCTGCCCAGGCCACTTACAGTGGCCTGG
AGAGCCAGTCAGTGAGTGGCTGTTACGGGGCCGGCTACAGTGGGCAGAACAGCATGGGTGGCTATGACTAGTTTT
GTTAGGAACATTTGAGTTACTTCAATCATTTTTCACAGGCAGCCAACAAGCAATTAAGAGCAGTTATAATAGAGGA
AGCTGGGGGACCCATTTTGCACCATGAGTTTGTGAAAAATCTGGATTAAAAAATTACCTCTTCAGTGTTTTCTCA
TGCAAAATTTTCTTCTAGCATGTGATAATGAGTAACTAAACTATTTTCAGCTTTTCTCAATTAACATTTTGGT
AGTATACTTCAGAGTGATGTTATCTAAGTTTAAAGTAGTTTAAAGTATGTTAAATGTGGATCTTTTACACCACATCA
CAGTGAACACACTGGGGAGACGTGCTTTTTTGGAAAACTCAAAGGTGCTAGCTCCCTGATTCAAAGAAATATTTT
TCATGTTTGTTCATTCTAGTTTATATTTTCATTTAAATCCTTTAGGTAAAGTTTAAAGCTTTTTTAAAGTTAGTT
TTGAGAATTGAGACACAATACTAATACTGTAGGAATTGGTGAAGCCTTGACTTAAACTTTCTTTGTACTGTGAT
TTCTTTTGGGTGTATTTTGTAAAGTGAAGTTGTTAAATTTTGTAACTAAATTTTTTCTTAAATAAAGA
CTTTTTCACAATGACTGGCACAGATTACTCAGCAAAAGATAGCAAAACGGGTGGTTGAAGATAATTCATTTAAT
CGTAATGTATTTTAGTGTGAATTTAAAAATTTTCATACATCAAATCTATGATCTCCCTTATATTCTTATGATGAGG
CTAAATAAAGTCTAATAAAAAATGTTAAATATGTGAATGGTGGAAATGGTGAAGTACTAGCAGCACACATTCTGGGAAG
CATCAAATAGACACACGGCCCCAGCCACCTGCAACTTATGTGCACTGTGTGAAACCATTCAGAATTTTCTGCTA
GGCCCTTGATGCTGGAGTCACATCTGTTGATAGCTGGAGAATTTAGTTTCAAGTACTACATTGTGAAAGCAATT
ATTTGTTTTCTCGTTTTTATAAAATGCTGACTTAACTTTT

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FIGURE 201

MMLGPEGGEGFVVKLRGLPWSCSVEDVQNFLSDCTIHDGAAGVHFIYTREGRQSGEAFVELGSEDDVKMALKKDR
ESMGHRYIEVFKSHRTEMDWVLKHSGPNSADSANDGFVRLRGLPFGCTKEEIVQFFSGLEIVPNGITLPVDPEGK
ITGEAFVQFASQELA EKALGKHKERIGHRYIEVFKSSQEEVRSYSDPPLKFMSVQRPGPYDRPGTARRYIGIVKQ
AGLERMRPGAYSTGYGGYEEYSGLSGDYGF TTDLFGRDLSYCLSGMYDHRYGDSEFTVQSTTGHCVMRGLPYKA
TENDIYNFFSPLNPVRVHIEIGPDGRVTGEADVEFATHEEAVAAMSKDRANMQHRYIELFLNSTTGASNGAYSSQ
VMQGMGVSAQA TYSGLESQSVSGCYGAGYSGQNSMGGYD

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FIGURE 202

GGCACGAGGCGCATGGAGCCGGGGCGCCGGGGGGCCGCGGCGCTGCTAGCGCTGCTGTGCGTGGCCCTGCGCGCTGCG
GCGCCGGGGCGCGCCCAATACGAACGCTACAGCTTCCGAGCTTCCCACGGGACGAGCTGATGCCGCTCGAGTCGG
CCTACCGGCACGCGCTGGACAAGTACAGCGGCGAGCACTGGGCCGAGAGCGTGGGCTACCTGGAGATCAGCCTGC
GGCTGCACCGCTTGCTGCGCGACAGCGAGGCCTTCTGCCACCGCAACTGCAGCGCCGCGCCGAGCCCGAGCCCG
CCGCCGGCCTCGCCAGCTATCCCGAGCTGCGCCTTCTCGGGGGCCTGCTGCGCCGCGCGCACTGCCTCAAGCGCT
GCAAGCAGGGCCTGCCAGCCTTCCGCCAGTCCCAGCCAGCGGAGGTGCTGGCGGACTTCCAGCGCCGCGAGC
CCTACAAGTTCCTGCGAGTTCGCTTACTTCAAGGCAAAATAATCTCCCCAAAGCCATCGCCGCTGCTCACACCTTTC
TACTGAAGCATCTGATGACGAAATGATGAAGAGGAACATGGCATATTATAAGAGCCTGCCTGGTGCCGAGGACT
ACATTAAAGACCTGGAAACCAAGTCATATGAAAGCCTGTTTCATCCGAGCAGTGCGGGCATACAACGGTGAGAACT
GGAGAACATCCATCACAGACATGGAGCTGGCCCTTCCCGACTTCTTCAAGCCTTTTACGAGTGTCTCGCAGCCT
GCGAGGGTTCCAGGGGAGATCAAGGACTTCAAGGATTCTACCTTTCATAGCAGATCATTATGTAGAAGTTCTGG
AATGCAAAATACAGTGTGAAGAGAACCTCACCCAGTTATAGGAGGCTATCCGGTTGAGAAATTTGTGGCTACCA
TGTATCATTACTTGCAGTTTGCTTATTATAAGTTGAACGACCTGAAGAATGCAGCCCCCTGTGCAGTCAGCTATC
TGCTCTTTGATCAGAATGACAAGGTCATGCAGCAGAACCTGGTGTATTACCAGTACCACAGGGACACTTGGGGCC
TCTCGGATGAGCACTTCCAGCCCAGACCTGAAGCAGTTTCAGTTCTTTAATGTGACCACACTCCAGAAGGAGCTGT
ATGACITTTGCTAAGGAAAAATATAATGGATGATGATGAGGGAGAAGTTGTGGAATATGTGGATGACCTCTTGGAAC
TGGAGGAGACCAGCTAGCCACAGCAACCAAGAGACTTCTCTTGGCGTTCAGGAAACACAGATTCTTTGTCTCT
TTTCCCAACAGCCCAGCTGTTGATACCTCAGAGCCTTCTCTTACTCTCCAAAGTGAAAGGGAAGCCCCCGTCT
CTCTAACTGCATGTCAATCAGGGGTGAGCCTGCCTTTCTATCTTACACCTGCCACCTCATGTTTACACCTATCT
TTCTCACCTTTTTTTTGTAGATGGAGTCTCGCTCTCTTGGCCAGGCTGGAGTGAATGGCACGTTCTCAGCTCACT
GCAACCTCCGCCCTCTTGGGTTCAGCAATTCTGCTGCATCAGCCTCCCGAGTACCTGGGATTACAGGCATGTGCC
ACCACGCCCGGCTAATTTTTGTATTTTTTAAGTAAGAGACGGGGTTTTGCCATGTTGGCCAGGCTGGTCTCGAACTC
TTGACTTCAGATGATCCATCTGCCTTGGGCCTCCACAGTGTGGGATTACAGGCGTGAGCCACCATGCCCGGCC
TCTTTCTCACCTTTACACCTGTCTTCTTATCTCACATCTGTTTTACACCTTCATCCCTGTCTTCTCATGTTT
ACACTTGTCTTCCCCATGTTTCATAGCTGCCTTTCTTACCATTTTGGTTTGAAGGGCAGTCTTCTCTGGCTTGTTT
TTTTGTTTTTCCAGAAAATCAGTATTATTTTTTAAATAAGAAAAACATTCTAGAAATGATAATTGTGAAAAC
CTCCTTTGGCTTATTTGCTTTTCCAGATTTTAGTCTCCTTTCTCCCCATCCGGGAAAGATGGTGGAAGACATAGG
CTAAATTTCTCCAGCCTCACAATGGTCTTCACCTTGGTCTGACTTGTACCAATTCTAGCACCCACTGAAAAACAAG
TTGAGTAGAGAGTGTAGAGTGCAGAAATGTGGCTTTTGCCCACTTTGCATCTCCAAAATTACAACGGTTGGCCG
ATCCCATTTGAGGACAATGCTTAGTTATAAGTCTCCGAGTTGGAAGGAAGAAAGCCAGAGCTGTCTAGTTTCA
TTCATTCTTTTCAGTAAATATTTATTGAGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 203

MEPGRRGAAALLALLCVACALRAGRAQYERYSFRRSFRDELMPLESAYRHALDKYSGEHWAESVGYLEISLRLHR
LLRDSEAFCHRNCSAAPQPEPAAGLASYPELRLEGGLLRRHCLKRCKQGLPAFRQSQPSREVLADFQRREPYKF
LQFAYFKANNLPKAIAAAHTFLKHPDDEMMKRNMAYYKSLPGAEDYIKDLETksYESLFIRAVRAYNGENWRTS
ITDMELALPDFFKAFYECLAACEGSREIKDFKDFYLSIADHYVEVLECKIQCEENLTPVIGGYPVEKfVATMYHY
LQFAYYKLNDLKNAAPCAVSYLLFDQNDKVMQQNLVYYQYHRDTWGLSDEHFQPRPEAVQFFNVTTLQKELYDFA
KENIMDDDEGEVVEYVDDLLELEETS

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FIGURE 204

CTCGTCGCCGCCGCCATTTTAGCTGTTGGTTCCGGCCGACCGTGTGGGCTGTAGTAGCGGGAGGGGTGGGGTTC
CTCCAGAGTTAAGTGGCTGTCTCGACTGTGCCATACAGCAGCCAGCTTTCTTCTTAATAACTGCCCGTTCGA
AGAGTGGGAGGATGTCCTCAAGCGGCACCGGTTGGACCTAGGGGAGGATTACCCCTCTGGCAAGAAGCGTGCGGGGA
CCGATGGGAAGGATCGAGATCGAGACCGGGATCGTGAAGATCGGTCTAAAGATCGAGACCGAGAACGTGATAGAG
GAGATAGAGAGCGAGAGAGGGAGAAAGAAAAGGAGAAGGAGTTGCGAGCTTCAACAAATGCTATGCTTATCAGTG
CTGGATTACCACCCCTGAAAGCTTCCCATTCAGTCACTCAACCCACTCAGCACATTCAACGCATTCTACACATT
CTGCTCATTCAACGCATGCCGACATGCAGGTACACGTCACCTTCCACAGTGCATTAAATCCGTTTACCAACTTAC
CCCATACTCCTCGATACTATGATATTCTAAAGAAACGTCTTTCAGCTCCCTGTTTGGGAATACAAGGATAGGTTTA
CAGATATTCTGGGTAGACATCAGTCTTTGTACTGGTTGGTGAGACTGGGTCTGGTAAACAACACAAATTCCAC
ACCGGTGTGTGGAGTACATGCGATCATTACCAGGACCCAAGAGAGGAGTTGCCTGTACCCAACCCAGGAGAGTGG
CTGCAATGAGTGTGGCTCAGAGAGTTGCTGATGAGATGGATGTGATGTTGGGCCAGGAAGTTGGTTACTCCATT
GATTTGAAGACTGCAGTAGTGCAAAAACATTTTTATGTATATGACTGATGGGATGTTACTTCGTGAAGCTATGA
ATGATCCCTCCTGGAGCGTTATGGTGAATAATTCTTGATGAGGCTCATGAGAGGACACTGGCTACAGATATTC
TAATGGGTGTTCTGAAGGAAGTTGTAAGACAGAGATCAGATTTAAAGGTTATAGTTATGAGCGCTACTCTAGATG
CAGGAAAATTCCAGATTACTTTGATAACTGTCTCTCTAACTATTCCCTGGGCGTACACATCCTGTTGAGATCT
TCTATACTCCAGAACCAGAGAGAGATTATCTTGAAGCAGCAATTTCGAACAGTTATCCAGATTATATGTGTGAAG
AGGAAGAGGGAGATCTTCTTCTTTTCTTAACTGGTCAAGAGGAAATTGATGAAGCCTGTAAGAGAATAAAGCGTG
AGCAACGCATTTTGGAGCCTCCACCTCCCAAAAAACAGAATGGAGCAATTGGAAGAAAGGTAGTTGTGTCAACTA
ACATAGCAGAGACGTCTTTGACAATAGATGGTGTGGTGTGTTGTGATTGATCCTGGATTGCGAAACAGAAGGTCT
ACAATCCTCGAATCAGAGTTGAGTCCCTTTTGGTGACAGCTATTAGTAAAGCTTCAGCTCAGCAAAGGGCTGGTC
GAGCTGGAGCTACCAGACCTGGAAAATGCTTCAGACTTTACACAGAGAAAGCTTATAAAACAGAAATGCAGGATA
ACACCTATCCTGAGATTTTGGCTTCTAATTTAGGATCAGTTGTGTTACAATTGAAGAACTTGGTATTGATGACT
TGGTACTTTTGAATTTTATGGATCCACCAGCTCCTGAAACTCTGATGAGAGCCCTGGAACCTTTGAATTACCTGG
CTGCTTTAAATGATGATGGAGATCTGACTGAATTGGGATCCATGATGGCAGAGTTTCTCTAGATCCACAGCTCG
CAAAAATGGTTATTGCAAGTTGTGACTACAACGTCTAATGAGGTCTATCTATTACTGCTATGTTGTGCTAGTCC
CAGAGTGTGTTGTTGCGCCCCACGGAGGCCAAGAAAGCCGCAGATGAGGCCAAGATGAGATTGCCCCACATAGATG
GAGATCATCTGACACTGCTGAACGTCTACCATGCTTTTAAACAAAATCATGAATCGGTTTCACTGGTGTATGACA
ACTTCATTAACTACAGGTCCCTGATGTCCGCGGACAATGTACGCCAGCAGCTATCTCGAATTATGGACAGATTTA
ATTTGCCTCGTGAAGTACTGACTTTACAAGCAGGGACTATTATATTAATAAGAAAAGCTTTGGTTACTGGGT
ATTTTATGCAGGTGGCACATTTAGAACGAACAGGGCATTACTTAACTGTGAAAGATAACCAGGTGGTTCAGTTGC
ATCCCTCTACTGTTCTTGACCACAAACCTGAATGGGTGCTTTATAATGAGTTTGTCTAACAACAAGAATTACA
TCCGGACATGTACAGACATCAAGCCAGAATGGTTGGTGAAAATTGCCCTCAATATTATGACATGAGCAATTTCC
CACAGTGGAAGCAAGAGACAGTTGGACCGCATCATTGCCCAAACCTCAATCCAAGGAATATTCACAGTACTGA
ATTCAGTGCTTAGAACTGAAGTTATTGAGAGGACAGCTTTAAAGATGAATGAAGTCAAAAGTTCGAGTTGTGCT
CTTCACGTTGGTTCGATAATGGCCTTTATTTGAAAGCTTTTAAATTTTCTTTACAGTAAATATTCATTCTGAT
TTCATAAAATTAACATTTATGCCTCCCTTTTGTGTTGACACTGTAGCTCATACTGAAAAGTCGATCAATGTTTT
GCAGTTTATTGAAAGTAGTTCTATATATAACAATGTTATAAGCATTCTTTAGAAATGGTTGAAAATGCTTCTAA
AATGTGATTATCGACCATGGTATGCATGATCGTTGTAATTGTTGACATTCTTTTAGAAGTTGTGAAATGTTACA
ACTTGTGCTTATGTAGACACAATTTTTTGTTCAGTACCAGAGGCACTGACTTCAATAAAGTTTATTTATACGGA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 205

MSKRHRDLGDGEDYPSGKKRAGTDGKDRDRDRDRDRSKDRDRDRDRGRDREREREKEKEKELRASTNAMLISAGLPLKASHSAHSTHSAHSTHSTHSAHSTHAGHAGHTSLPQCINPFTNLPHTPRYYDILKKRLQLPVWEYKDRFTDILGRHQSFVLVGETSGSKTTQIPHRCVEYMRSLPGPKRGVACTQPRRVAAMSVAQORVADEMDVMLGOEVGYSIRFEDCSSAKTFFMYMTDGMLLREAMNDPLLERYGVIILDEAHERTLATDILMGVLKEVVRRQSDLKVIVMSATLDAGKFQIYFDNCPLLTIPGRTHPVEIFYTPEPERDYLEAAIRTVIQIHMCEEEEGDLLLFLTGOEEIDEACKRIKREVDDLGPEVGDIKIIPLYSTLPPQQQQRIFEPKKQNGAIGRKVVSTNIAETSLTIDGVVFVIDPGFAKQKVYNPIRVESLVTASIKASAQQRAGRAGRTRPGKCFRLYTEKAYKTEMQDNTYPEILRSNLGSSVLQLKKLGIDDLVHFDMDPPAPETLMRALELLNYLAALNDDGDLTELGSMAEFPLDPQLAKMVIASCDYNCSNEVLSITAMLSVPQCFVRPTEAKKADEAKMRFAHIDGDHLTLNLYHAFKQNHESVQWCYDNFINYRSLMSADNVRQQLSRIMDRFNLPRSTDFTSRDYYINIRKALVTGYFMQVAHLERTGHYLTVKDNQVVQLHPSTVLDHKPEWVLYNEFVLTTKNYIRCTDIKPEWLVKIAPQYYDMSNFPQCEAKRQLDRIIAQTSIQGIFTVLNSVLRTTEVIERTALKDE

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FIGURE 206

GAATTCGCGGCCGCTGGTTTGCAGCTGCTCCGTCATCTGCGGCCCGACGCTATCTCGCGCTCGTGTGCAGGCCC
GGCTCGGCTCCTGGTCCCCGGTGCGAGGGTTAACGCGAGGCCCGGCCCTCGGTCCCCGGACTAGGCCGTGACCCC
GGGTGCCATGAAGCAGGAGGGCTCGGCGCGGCGCGCGCGGACAAGGCGAAACCGCGCCCGGGGAGGAGA
ACAAGAACCCCCACCGCCGCGGCCCCAGGATGTGGAGATGAAAGAGGAGGCAGCGACGGGTGGCGGGTCAAC
GGGGGAGGCAGACGGCAAGACGGCGGCGCAGCGGTTGAGCACTCCCAGCGAGAGCTGGACACAGTCACCTTGGG
GGACATCAAGGAGCAGTGAAACAGCTAGAGAAAGCGGTTTCAGGCAAGGAGCCGAGATTCTGTCTGCGGGCCCT
GCGGATGCTGCCTTCCACATCAGCGCCCTCAACCCTATGTTCTGTATAAGGCTGTGCAGGGCTTCTTCACTTC
AAATAATGCCACTCGAGACTTTTTGCTCCCTTCTGGAAGAGCCCATGGACACAGAGGCTGATTACAGTTCCG
TCCCGCACGGGAAAAGCTGCGTCGACACCCCTCCTGCCTGAAGTGAAGCCTATCTCCAACCTCTCGTGGTCAT
CTTCATGATGAACAGCAAGCGCTACAAAGAGGCACAGAAGATCTCTGATGATCTGATGCAGAAGATCAGTACTCA
GAACCGCCGGGCCCTAGACCTTGTAGCCGCAAAGTGTTACTATTATCAGCCCGGGTCTATGAGTTCTTGGACAA
GCTGGATGTGGTGCGCAGCTTCTTGCATGCTCGGCTCCGGACAGCTACGCTTCGGCATGACGCAGACGGGCAGGC
CACCTGTTGAACCTCCTGCTGCGGAATTACCTACACTACAGCTTGTACGACCAGGCTGAGAAGCTGGTGTCCAA
GTCTGTGTTCAGAGCAGGCCAACAACAATGAGTGGGCCAGGTACCTCTACTACAGGGCGAATCAAAGCCAT
CCAGCTGGAGTACTCAGAGGCCCGGAGAACGATGACCAACGCCCTTCGCAAGGCCCTCAGCACACAGCTGTGG
CTTCAAACAGACGGGTGCACAAGCTTCTCATCGTGGTGGAGCTGTTGCTGGGGGAGATCCCTGACCGGCTGCAGTT
CCGCCAGCCCTCCCTCAAGCGCTCACTCATGCCCTATTTCTTCTGACTCAAGCTGTGAGGACAGGAAACCTAGC
CAAGTTCAACCAGGTCCTGGATCAGTTTGGGGAGAAGTTTCAAGCAGATGGGACCTACACCCTAATTATCCGGCT
GCGGCACAACGTGATTAAGACAGGTGTACGCATGATCAGCCTCTCCTATTCCCGAATCTCCTTGGCTGACATCGC
CCAGAAGCTGCAGTTGGATAGCCCCGAAGATGCAGAGTTTATTGTTGCCAAGGCCATCCGGGATGGTGTGATTGA
GGCCAGCATCAACCACGAGAAGGGCTATGTCCAATCCAAGGAGATGATTGACATCTATTCCACCCGAGAGCCCCA
GCTAGCCTTCCACCAGCGCATCTCCTTCTGCCTAGATATCCACAACATGTCTGTCAAGGCCATGAGGTTTCTCC
CAAATCGTACAACAAGGACTTGGAGTCTGCAGAGGAACGGCGTGAGCGAGAACAGCAGGACTTGGAGTTTGCCAA
GGAGATGGCAGAAGATGATGATGACAGCTTCCCTTGAAGCTGGGGGGCTGGGGAGGGGTAGGGGGAATGGGGACAG
GCTCTTTCCCCCTTGGGGGTCCCTGCCCAGGGCACTGTCCCCATTTTCCACACACAGCTCATATGCTGCATTCT
GTGCAGGGGGTGGGGGTGCTGGGAGCCAGCCACCCTGACCTCCCCAGGGCTCCTCCCCAGCCGGTGACTTACTG
TACAGCAGGCAGGAGGGTGGGCAGGCAACCTCCCCGGGCAGGGTCTGGCCAGCAGTGTGGGAGCAGGAGGGGAA
GGATAGTTCTGTGTAATCTTTAGGGAGTGGGGGACTAGAACTGGGATGTCTTGGCTTGTATGTTTTTGAAGCT
TCGATTATGATTTTTAAACAATAAAAAAGTTCTCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAGCGCCGCGAAT
TC

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FIGURE 207

MKQEGSARRRGADKAKPPPGGGEQEP PPPAPQDVEMKEEAATGGGSTGEADGKTAAAAVEHSQRELDTVTLEDI
KEHVKQLEKAVSGKEPRFVLRALRMLPSTSRRLNHYVLYKAVQGFFTSNNATRD FLLPFLEEPMDTEADLQFRPR
TGKAASTPLLPEVEAYLQLLVIFMMNSKRYKEAQKISDDLMQKISTQNRALDLVAAKCYHHARVYEF LDKLD
VVR SFLHARLRTATLRHDADGQATLLNLLRNYLHYSLYDQAEKLVSKSVFPEQANNNEWARYLYYTGR IKAIQL
EYSEARRMTNALRKAPQHTAVGFKQTVHKLLIVVELLLGEIPDRLQFRQPSIKRSLMPYFLLTQAVRTGNLAKF
NQVLDQFGEKFQADGTYTLIIRLRHNVIKTGVRMISLSYSRISLADIAQKLQD SPEDA EFIVAKAIRDGVIEAS
INHEKGYVQSKEMIDIYSTREPQLAFHQRI SFCLDIHNMSVKAMRFPPKSYNKDLESAEERREREQQDLEFAKEM
AEDDDDSFP

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FIGURE 208A

CAGGACAGGGAAGAGCGGGCGCTATGGGGAGCCGACGCCAGAGTCCCCCTCTCCACGCCGTGCAGCTGCGCTGGG
GCCCCGGCGCCGACCCCGCTCGTGCCGCTGCTGTTGCTGCTCGTGCCGCCGCCACCCAGGGTCGGGGGCTTCA
ACTTAGACGCGGAGGCCCCAGCAGTACTCTCGGGGCCCCGGGCTCCTTCTTCGGATTCTCAGTGGAGTTTACC
GGCCGGGAACAGACGGGGTCAGTGTGCTGGTGGGAGCACCCAAAGGCTAATACCAGCCAGCCAGGAGTGTGCAGG
GTGGTGTCTTACCTCTGTCTTGGGGTGCCAGCCCCACACAGTGCACCCCCATTGAATTTGACAGCAAAGGCT
CTCGGCTCCTGGAGTCTACTGTCTCAGCTCAGAGGGAGAGGAGCCTGTGGAGTACAAGTCTTGCAGTGGTTTCG
GGGAACAGTTCGAGCCCCATGGCTCCTCCATCTTGGCATGCGCTCCACTGTACAGCTGGCGCACAGAGAAGGAGC
CACTGAGCGACCCCGTGGGCACCTGTCTACCTCTCCACAGATAACTTCACCCGAATTCTGGAGTATGCACCCTGCC
GCTCAGATTTAGCTGGGCAGCAGGAGTACTGTCCAAGGAGGCTTCAGTGGCGAGTTCACCAAGACTGGCC
GTGTGGTTTTAGGTGGACCAGGAAGCTATTTTGGCAAGGCCAGATCCTGTCTGCCACTCAGGAGCAGATTGCAG
AATCTTATTACCCCGAGTACCTGATCAACCTGGTTCAGGGGAGCTGCAGACTCGCCAGGCCAGTTCCATCTATG
ATGACAGCTACCTAGGATACTCTGTGGCTGTGGTGAATTCAGTGGTGATGACACAGAAGACTTTGTTGCTGGTG
TGCCCAAAGGGAACCTCACTTACGGCTATGTACCATCCTTAATGGCTCAGACATTCGATCCCTCTACAACCTCT
CAGGGGAACAGATGGCCTCCTACTTTGGCTATGCAGTGGCCGCCACAGACGTCAATGGGGACGGGCTGGATGACT
TGCTGGTGGGGGACCCCTGTCTATGGATCGGACCCCTGACGGGCGGCTCAGGAGGTGGGCAGGGTCTACGTCT
ACCTGCAGCACCCAGCCGCATAGAGCCCCACGCCCCACCTTACCTCACTGGCCATGATGAGTTTGGCCGATTG
GCAGCTCCTTGACCCCCCTGGGGACCTGGACCAGGATGGCTACAATGATGTGGCCATCGGGGCTCCCTTTGGTG
GGGAGACCCAGGAGGAGTAGTGTGTTGATTTCTGGGGGCCAGGAGGGCTGGGCTCTAAGCTTCCAGGTTTC
TGCAGCCCTGTGGGCAGCCAGCCACACCCAGACTTCTTTGGCTCTGCCCTTCGAGGAGGCCGAGACCTGGATG
GCAATGGATATCCTGATCTGATTGTGGGGTCTTTGGTGTGGACAAGGCTGTGGTATACAGGGGCCGCCCATCG
TGCTCGCTAGTGCCTCCCTCACCATCTTCCCGCCATGTTCAACCCAGAGGAGCGGAGCTGCAGCTTAGAGGGGA
ACCTGTGGCCTGCATCAACCTTAGCTTCTGCCTCAATGCTTCTGGAACACGTTGCTGACTCCATTGGTTTCA
CAGTGAACCTTCAGCTGGACTGGCAGAAGCAGAAGGGAGGGGTACGGCGGGCACTGTTCTTGGCCTCCAGGCAGG
CAACCTTGACCCAGACCTGTCTATCCAGAATGGGGCTCGAGAGGATTGCAGAGAGATGAAGATCTACCTCAGGA
ACGAGTCAGAATTTGAGACAACTCTCGCCGATTACATCGCTCTCAACTTCTCTTGGACCCCCAAGCCCCAG
TGGACAGCCACGGCCTCAGGCCAGCCCTACATTATCAGAGCAAGAGCCGGATAGAGGACAAGGCTCAGATCTTGC
TGGACTGTGGAGAAGACAACATCTGTGTGCCTGACCTGCAGCTGGAAGTGTGTTGGGGAGCAGAACCATGTGTACC
TGGGTGACAAGAATGCCCTGAACCTCACTTTCCATGCCCAGAATGTGGGTGAGGGTGGCGCCTATGAGGCTGAGC
TTCCGGTCAACGCCCCCTCCAGAGGCTGAGTACTCAGGACTCGTCAGACACCCAGGGAACCTTCTCAGCCTGAGCT
GTGACTACTTTGCCGTGAACAGAGCCGCTGTGGTGTGTGACCTGGGCAACCCCATGAAGGCAGGAGCCAGTC
TGTGGGGTGGCCTTCGGTTTACAGTCCCTCATCTCCGGACACTAAGAAAACCATCCAGTTTACTTCCAGATCC
TCAGCAAGAATCTCAACAACCTCGCAAAGCGACGTGGTTTCTTTCCGGCTCTCCGTGGAGGCTCAGGCCAGGTCA
CCCTGAACGGTGTCTCCAAGCCTGAGGCAGTGCTATTCCAGTAAGCGACTGGCATCCCCGAGACCAGCCTCAGA
AGGAGGAGGACCTGGGACCTGTGTCCACCATGTCTATGAGCTCATCAACCAAGGCCCCAGCTCCATTAGCCAGG
GTGTGCTGGAACCTCAGCTGTCCCCAGGCTCTGGAAGGTGAGCAGCTCCTATATGTGACCAGAGTTACGGGACTCA
ACTGCACCACCAATCACCCCATTAACCCAAAGGGCCTGGAGTTGGATCCCGAGGGTTCCCTGCACCACCAGCAAA
AACGGGAAGCTCCAAGCCGAGCTCTGCTTCCCTCGGACCTCAGATCCTGAAATGCCCGGAGGCTGAGTGTTC
GGCTGCGCTGTGAGCTCGGGCCCCCTGCACCAACAAGAGAGCCAAAGTCTGCAGTTGCATTTCCGAGTCTGGGCCA
AGACTTTCTTGACGCGGGAGCACCAGCCATTTAGCCTGCAGTGTGAGGCTGTGTACAAAGCCCTGAAGATGCCCT
ACCGAATCCTGCCTCGGCAGCTGCCCAAAAAGAGCGTCAGGTGGCCACAGCTGTGCAATGGACCAAGCAGAAAG
GCAGCTATGGCGTCCCACTGTGGATCATCATCTAGCCATCCTGTTTGGCCTCCTGTCTCTAGGTCTACTCATCT
ACATCCTCTACAAGCTTGGATTCTTCAAACGCTCCCTCCCATATGGCACCGCCATGAAAAAGCTCAGCTCAAGC
CTCCAGCCACCTCTGATGCCGTGAGTCTCTCCCAATTCAGACTCCCATTCCTGAAGAACCAGTCCCCCACCCTCA
TTCTACTGAAAAGGAGGGGCTCTGGGTACTTCTTGAAGGTGCTGACGGCCAGGGAGAAGCTCCTCTCCCCAGCCCA
GAGACATACTTGAAGGGCCAGAGCCAGGGGGGTGAGGAGCTGGGGATCCCTCCCCCATGCACTGTGAAGGACC
CTGTTTACACATAACCCTCTTATGGATGGGGGAACCTCAGATCCAGGACAGAGGCCAGCCTCCCTGAAGCCTT
TGCAATTTGGAGAGTTTCTGAAACAACCTGGAAGATAACTAGGAAATCCATTACAGTCTTTTGGGCCAGACAT
GCCACAAGGACTTCTGTCCAGCTCCAACCTGCAAGATCTGTCTCAGCCTTGCCAGAGATCCAAAAGAAGCCC

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FIGURE 208B

CCAGTAAGAACCTGGAACCTGGGGAGTTAAGACCTGGCAGCTCTGGACAGCCCCACCCTGGTGGGCCAACAAAGA
ACACTAACTATGCATGGTGCCCCAGGACCAGCTCAGGACAGATGCCACAAGGATAGATGCTGGCCCAGGGCCAGA
GCCCAGCTCCAAGGGGAATCAGAACTCAAATGGGGCCAGATCCAGCCTGGGGTCTGGAGTTGATCTGGAACCCAG
ACTCAGACATTGGCACCAATCCAGGCAGATCCAGGACTATATTTGGGCCTGCTCCAGACCTGATCCTGGAGGCC
AGTTCACCCTGATTTAGGAGAAGCCAGGAATTTCCCAGGACCTGAAGGGGCCATGATGGCAACAGATCTGGAACC
TCAGCCTGGCCAGACACAGGCCCTCCCTGTTCCCCAGAGAAAGGGGAGCCCACTGTCCTGGGCCTGCAGAATTTG
GGTTCGCTGCCAGCTGCACCTGATGCTGCCCCCTCATCTCTGCCCCAACCTTCCCTCACCTTGGCACCAGACA
CCCAGGACTTATTTAACTCTGTTGCAAGTGCAATAAATCTGACCCAGTGCCCCCACTGACCAGAACTAGAAAAA
AAAA

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FIGURE 209

MGSRTPEsplHavQLRWGpRRRPpLVpLLLLLVpPPpRVGGFNLDaEAPAVLSGPPGSFFGFSVEFYRPGTDGVS
VLVGAPKANTSQPGVLQGGAVYLCpWGASPTQCTPIEFDSKGSRLLESSLSSEGEePVEYKSLQWFGATVRAHG
SSILACAPLYSWrTEKEPLSDpVGTCYLSTDNfTRILEYAPCRSDfSWAAGQGYCQGGFSAEfTKTGRVVLGGPG
SYFWQqILSATqEQIAESYYPEYLINLVQqQLQTRQASSIYDDSYLGYSVAVGEfSGDDTEdFVAGVPKGNLTy
GYVTILNGSDIRSLYNfSGEQMASYFGYAVAATDVNGDGLDDLLVGAPLLMDRTPDGRpQEVGRVYVYLQHPAGI
EPTPTLTlLTGHDEFGRFGSSLTPLGDLDQDGYNDVAIGAPFGGETQqGVVFVFPGGPGGLGSKPSQVLQPLWAAS
HTPDFFGSALRGGRDLdGNGYPDLIVGSFGVDKAVVYRGRPIVSASASLTIFPAMFNPEERSCSLEGNPVACINL
SFCLNASGKHVADSIGFTVELQLDWQKQKGGVRRALFLASRQATLTQTLLIQNGAREDCREMKIYLrNESEFRDK
LSPiHIALNFSLDPQAPVDShGLRPALHYQSKSRIEdKAQILLDCGEDNICVPDLQLEVFGEQNHVYLGDKNALN
LTFHAQNVGEGGAYEAELRVtAPPEAEYSGLVrHPGNFSSLSCDYFAVNQSRLLVCDLGnPMKAGASLWGGLRFT
VPHLRDTKkTIQDFQILSKNLnNSQSDVVSfRLSVEAQAVTLNGVSKPEAVLFPVSDWHPRDQPQKEEDLGPA
VHHVYELINQGPSSISQGVLELSCPQALEGQQLLYVTRVTGLNCTTNHPINPKGLELDPEGSLHHQqKREAPSRs
SASSGPQILKCEAEcFRLRCELGPLHQqESQSLQLHFRVWAKTFLQREHQPFSLQCEAVYKALKMPYRILPRQL
PQKERQVATAVQWTKAEGSYGVPLWIIILAILFGLLLLGLLIYIYLKLGFFKRSLPYGTAMEKAQLKPPATSDA

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FIGURE 210

GGGCGCGCCAGAGACGCAGCCGCGCTCCACCACCCACACCCACCGCGCCCTCGTTGCGCTCTTCTCCGGGAGCC
AGTCCGCGCCACCGCGCCGCCAGGCCATCGCCACCCTCCGCAGCCATGTTCCACCAGGTCCGTGTCTCGTCTT
CCTACCGCAGGATGTTTCGGCGGCCCGGGCACCGCGAGCCGGCCGAGCTCCAGCCGGAGCTACGTGACTACGTCCA
CCCGCACCTACAGCCTGGGCAGCGCGCTGCGCCCCAGCACCAGCCGAGCCTCTACGCCTCGTCCCCGGGCGGCG
TGTATGCCACGCGCTCCTCTGCGGTGCGCCTGCGGAGCAGCGTGCCCGGGGTGCGGCTCCTGCAGGACTCGGTGG
ACTTCTCGTGGCCGACGCCATCAACACCGAGTTCAAGAACACCCGCACCAACGAGAAGGTGGAGCTGCAGGAGC
TGAATGACCGCTTCGCCAACTACATCGACAAGGTGCGCTTCTGGAGCAGCAGAATAAGATCCTGTGGCCGAGC
TCGAGCAGCTCAAGGGCCAAGGCAAGTCGCGCCTAGGGGACCTCTACGAGGAGGAGATGCGGGAGCTGCGCCGGC
AGGTGGACAGCTAACCAACGACAAAGCCCGCTCGAGGTGGAGCGCGACAACCTGGCCGAGGACATCATGCGCC
TCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAACACCCTGCAATCTTTCAGACAGGATG
TTGACAATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAAGTGGAAATCTTTGCAAGAAGAGATTGCCTTTTTGA
AGAAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTAGGAACAGCATGTCCAAATCGATGTGGATG
TTTCCAAGCCTGACCTCACGGCTGCCCTGCGTGACGTACGTGAGCAATATGAAAGTGTGGCTGCCAAGAACCTGC
AGGAGGCAGAGAAGATGGTACAAATCCAAGTTTGCTGACCTCTCTGAGGCTGCCAACCAGGAACAATGACGCCCTGC
GCCAGGCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTTAAAG
GAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAG
ACACTATTGGCCGCTGCAGGATGAGATTGAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAG
ACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCGAGGAGAGCA
GGATTTCTCTGCTCTTCCAACTTTTTCTCCCTGAACCTGAGGGAACTAATCTGGATTCACTCCCTCTGGTTG
ATACCCACTCAAAAAGGACATTCTGATTAAGACGGTTGAACTAGAGATGGACAGGTTATCAACGAACTTCTC
AGCATCACGATGACCTTGAATAAAATTGCACACACTCAGTGGCAGGCGATATATTACCCAGGCAAGAATAAAAA
AGAAATCCCATATCTTAAAGAAACAGCTTTCAAGTGCCTTTCTGCAGTTTTTCAGGAGCGCAAGATAGATTGGGA
ATAGGAATAAGCTCTAGTTCTTAACAACCGACACTCCTACAAGATTTAGAAAAAGTTTACAACATAATCTAGTT
TACAGAAAAATCTTGTGCTAGAATACTTTTTAAAAGGTATTTTGAATACCATTAAACTGCTTTTTTTTTTCCAG
CAAGTATCCAACCAACTTGTTCTGCTTCAATAAATCTTTGGAAACTCCA

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FIGURE 211

MSTRSVSSSSYRRMFGGPGTASRPSSRSYVTTSTRTYSLGSALRPSTSRSLYASSPGGVYATRSSAVRLRSSVP
GVRLQLQDSVDFSLADAINTEFKNTRTNEKVELQELNDRFANYIDKVRFLQONKILLAELEQLKGQKSR LGDLY
EEEMRELRRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEMLQREEAENTLQSFQDQVDNASLARLDLERKVE
SLQEEIAFLKKLHEEEIQELQAQIQEQHVQIDVDVSKPDLTAALRDVRRQYESVAAKNLQEAEEWYKSKFADLSE
AANRRNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMREMEENFAVEAANYQDTIGRLQDEIQNMKEE
MARHLREYQDLLNVKMALDIEIATYRKLEGEESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRTFLIKTVETR
DGQVINETSQHDDLE

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FIGURE 212A

CAGTTTGGAGCTCAGTCTTCCACCAAAGGCCGTTTCTCTCTGGGCTCCAGCCTCCTGCAAGGACTGCAAGAG
TTTTCTCCGCAGCTCTGAGTCTCCACTTTTTTGGTGGAGAAAGGCTGCAAAAAGAAAAGAGACGCAGTGAGTG
GGAAAAGTATGCATCCTATTCAAACCTAATTGAATCGAGGAGCCAGGGACACACGCCTTCAGGTTTGCTCAGGG
GTTTCATATTTGGTGTCTAGACAAATTCAAAATGAGGAAACATCGGCACCTGCCCTTAGTGGCCGCTTTTTGCCTC
TTTCTCTCAGGCTTTCTTACAACCTCATGCCCAGCAGCAGCAAGCAGATGTCAAAAATGGTGGGCTGCTGATATA
ATATTTCTAGTGGATTCTCTTGGACCATTGGAGAGGAACATTTCCAACCTGTTCGAGAGTTTCTATATGATGTT
GTAAAATCCTTAGCTGTGGGAGAAAATGATTTCATTTTGTCTGGTCCAGTTCAACGGAAACCCACATACCGAG
TTCCTGTAAATACGTATCGTACTAAACAAGAAGTCCTTTCTCATATTTCCAACATGTCTTATATTGGGGGAACC
AATCAGACTGGAAAAGGATTAGAATACATAATGCAAAGCCACCTCACCAAGGCTGCTGGAAGCCGGGCCGGTGAC
GGAGTCCCTCAGGTTATCGTAGTGTTAACTGATGGACACTCGAAGGATGGCCTTGCTCTGCCCTCAGCGGAACCT
AAGTCTGCTGATGTTAACGTGTTTGCAATTGGAGTTGAGGATGCAGATGAAGGAGCGTTAAAGAAATAGCAAGT
GAACCGTCAATATGCATATGTTCAACCTAGAGAATTTTACCTCACTTCATGACATAGTAGGAACTTAGTGTC
TGTGTGCATTCATCCGTGAGTCCAGAAAGGGCTGGGGACACGGAAACCTTAAAGACATCACAGCACAAGACTCT
GCTGACATTATTTTCTTATTGATGGATCAAACAACACCGGAAGTGTCAATTTCCGAGTCATTCTCGACTTCCTT
GTAAATCTCCTTGAGAAACTCCCAATTGGAACCTCAGCAGATCCGAGTGGGGGTGGTCCAGTTTAGCGATGAGCCC
AGAACCATGTTTTCTTGGACACCTACTCCACCAAGGCCAGGTTCTGGGTGCAGTGAAAGCCCTCGGGTTTGCT
GGTGGGGAGTTGGCCAATATCGGCCTCGCCCTTGATTTCTGTGGTGGAGAACCCTTCACCCGGGCAGGGGGCAGC
CGCGTGGAGGAAGGGGTTCCCCAGGTGCTGGTCTCATAAGTGC CGGGCCTTCTAGTGACGAGATTGCTACGGG
GTGGTAGCACTGAAGCAGGCTAGCGTGTTCTCATTCCGGCCTTGGAGCCAGGCCGCTCCAGGGCAGAGCTTCAG
CACATAGCTACCGATGACAACCTGGTGTTTACTGTCCCGAATTCCGTAGCTTTGGGGACCTCCAGGAGAAATTA
CTGCCGTACATTGTTGGCGTGGCCCAAAGGCACATTGTCTTGAAACCGCCAACCATTGTACACAAGTCATTGAA
GTCAACAAGAGAGACATAGTCTTCTGGTGGATGGCTCATCTGCACTGGGACTGGCCAACCTCAATGCCATCCGA
GACTTCATTGCTAAAGTCATCCAGAGGCTGGAATCGGACAGGATCTTATCCAGGTGGCAGTGCCCCAGTATGCA
GACACTGTGAGGCCTGAATTTTATTTCATACCCATCCAACAAAAGGGAAGTCATAACCGCTGTGCGGAAAATG
AAGCCCCCTGGACGGCTCGGCCCTGTACACGGGCTCTGCTCTAGACTTTGTTTCGTAACAACCTATTACAGAGTCA
GCCGGCTACCGGGCTGCCGAGGGGATTCTTAAGCTTTTGGTGTGATCACAGGTGGTAAAGTCCCTAGATGAAATC
AGCCAGCCTGCCAGGAGCTGAAGAGAAGCAGCATAATGGCCTTTGCCATTGGGAACAAGGGTGCCGATCAGGCT
GAGCTGGAAGAGATCGCTTTTCTGACTCCTCCCTGGTGTTCATCCAGCTGAGTTCCGAGCCGCCCCATTGCAAGGC
ATGCTGCCTGGCTTGTGTCACCTCTCAGGACCCTCTCTGGAACCCCTGAAGTTCACTCAAACAAAAGAGATATC
ATCTTTCTTTTGGATGGATCAGCCAACGTTGGAACCAACATTTCCCTTATGTGCGGACTTTGTAATGAACCTA
GTTAACAGCCTTGATATTGGAATGACAATATTCTGTGTTGGTTTGTGCAATTTAGTGACACTCCTGTAACGGAG
TTCTCTTTAAACACATACCAGACCAAGTCAGATATCCTTGGTCACTGAGGCAGCTGCAGCTCCAGGGAGGTTG
GGCCTGAACACAGGCTCAGCCCTAAGCTATGTCTATGCCAACCACTTCACGGAAGCTGGCGGCAGCAGGATCCGT
GAACACGTGCCGAGCTCCTGCTTCTGCTCACAGCTGGGCAGTCTGAGGACTCCTATTTGCAAGCTGCCAACGCC
TTGACACGCGCGGGCATCTGACTTTTTTGTGTGGGAGCTAGCCAGGCCAATAAGGCAGAGCTTGAGCAGATTGCT
TTTAACCCAAGCCTGGTGATCTCATGGATGATTTACAGTCCCTGCCAGCTTTGCCTCAGCAGCTGATTACAGCC
CTAACACATATGTTAGTGGAGGTGTGGAGGAAGTACCCTCGCTCAGCCAGAGAGCAAGCGAGACATTCTGTTT
CTCTTTGACGGCTCAGCCAATCTTGTGGGCCAGTTCCCTGTGTCCGTGACTTTCTCTACAAGATTATCGATGAG
CTCAATGTGAAGCCAGAGGGGACCCGAATTGCGGTGGCTCAGTACAGCGATGATGTCAAGGTGGAGTCCCGTTTT
GATGAGCACCAGAGTAAGCCTGAGATCCTGAATCTTGTGAAGAGAATGAAGTCAAGACGGGCAAAGCCCTCAAC
CTGGGCTACGCGCTGGACTATGCACAGAGGTACATTTTTGTGAAGTCTGCTGGCAGCCGGATCGAGGATGGAGTG
CTTCAGTTCTTGGTGTGCTGGTCCGAGGAAGGTCTATCTGACCGTGTGGATGGGCCAGCAAGTAACCTGAAGCAG
AGTGGGGTTGTGCCTTTTCTCTTCCAAGCCAAGAACGCAGACCCTGCTGAGTTAGAGCAGATCGTGTCTCTCCA
GCGTTTATCTGGCTGCAGAGTCTGCTTCCCAAGATTGGAGATCTTCATCCACAGATAGTGAATCTCTTAAATCA
GTGCACAACGGAGCACCAGCACCAGTTTCAGGTGAAAAGGACGTGGTGTCTGCTTGATGGCTCTGAGGGCGTC
AGGAGCGGCTTCCCTCTGTTGAAAGAGTTTGTCCAGAGAGTGGTGAAAGCCTGGATGTGGGCCAGGACCGGGTC
CGCGTGGCCGTGGTGCAGTACAGCGACCGGACCGCCGAGTTCTACCTGAATTCATACATGAACAAGCAGGAC
GTCGTCAACGCTGTCCGCCAGCTGACCCTGCTGGGAGGGCCGACCCCAACACCGGGGCCCGCCCTGGAGTTTGTC

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FIGURE 212B

CTGAGGAACATCTGGTCAGCTCTGCGGGAAGCAGGATAACAGAAGGTGTGCCCCAGCTGCTGATCGTCTCAGC
GCCGACAGGTCTGGGGATGATGTGCGGAACCCCTCCGTGGTCTGTAAGAGGGGTGGGGCTGTGCCATTGGCATT
GGCATCGGGAACGCTGACATCACAGAGATGCAGACCATCTCCTTCATCCCGGACTTTGCCGTGGCCATTCCCACC
TTTCGCCAGCTGGGGACCGTCCAACAGGTATCTCTGAGAGGGTGACCCAGCTCACCCGCGAGGAGCTGAGCAGG
CTGCAGCCGGTGTTCAGCCTCTACCGAGCCAGGTGTTGGTGGCAAGAGGGACGTGGTCTTTCTCATCGATGGG
TCCCAAAGTGCCGGGCCCTGAGTTCAGTACGTTTCGCACCCCTCATAGAGAGGCTGGTTGACTACCTGGACGTGGGC
TTTGACACCACCCGGGTGGCTGTCTATCCAGTTTCAGCGATGACCCCAAGGCGGAGTTCTCTGCTGAACGCCCATTC
AGCAAGGATGAAGTGCAGAACGCGGTGCAGCGGTGAGGCCCAAGGGAGGGCGGCAGATCAACGTGGGCAATGCC
CTGGAGTACGTGTCCAGGAACATCTTCAAGAGGCCCTGGGGAGCCGCATTGAAGAGGGCGICCCACAGTTCTCTG
GTCCTCATCTCGTCTGGAAGTCTGACGATGAGGTGGTCTGCCGCGGTGGAGCTCAAGCAGTTTGGCGTGGCC
CCTTTCAGGATCGCCAGGAACGCAGACCAGGAGGAGTGGTGAAGATCTCGCTGAGCCCCGAATATGTGTTCTCG
GTGAGCACCTTCCGGGAGCTGCCAGCCTGGAGCAGAACTGCTGACGCCCATCACGACCTGACCTCAGAGCAG
ATCCAGAAGCTCTAGCCAGCACTCGCTATCCACCTCCAGTGCAGAGTTCAGAGAGCTTCCCAACATAGAAGAA
AGAATCATGAACCTCGTTTGGACCTCCGCAGCCACTCCTGCACCTCCAGGGGTGGACACCCCTCCTCTTCACGG
CCAGAGAAGAAGAAAGCAGACATTGTGTTCTGTTGGATGGTTCCATCAACTTCAGGAGGGACAGTTTCCAGGAA
GTGCTTCGTTTTGTGCTGAAATAGTGGACACAGTTATGAAGATGGCGACTCCATCCAAGTGGGGCTTGTCCAG
TACAACTCTGACCCCACTGACGAATTCTTCTGAAGGACTTCTCTACCAAGAGGCAGATTATTGACGCCATCAAC
AAAGTGGTCTACAAAGGGGGAAGACACGCCAACACTAAGGTGGGCCTTGAGCACCTGCGGGTAAACCCTTTGTG
CCTGAGGCAGGCAGCCGCTGGACCAGCGGGTCCCTCAGATTGCCCTTTGTGATCACGGGAGGAAAGTCGGTGGAA
GATGCACAGGATGTGAGCCTGGCCCTACCCAGAGGGGGTCAAAGTGTGTTGCTGTTGGAGTGAGGAATATCGAC
TCGGAGGAGGTGGAAAGATAGCGTCCAACAGCGCCACAGCGTTCCGCGTGGGCAACGTCCAGGAGCTGTCCGAA
CTGAGCGGAGCAAGTTTTGGAACTTTGCATGATGCGATGCGATGAAACCTTTGCCCTGGTGTAACTGATGCTGCC
AAAGCTTGTAATCTGGATGTGATTCTGGGGTTTGATGGTTCTAGAGACCAGAATGTTTTTGTGGCCAGAGGGC
TTCGAGTCCAAGGTGGACGCCATCTTGAACAGAATCAGCCAGATGCACAGGGTCAGCTGCAGCGGTGGCCGCTCG
CCCACCGTGCCTGTGTCTAGTGGTGGCCAACACGCCCTCGGGCCCGGTGGAGGCCTTTGACTTTGACGAGTACCAG
CCAGAGATGCTCGAGAAGTTCCGGAACATGCGCAGCCAGCACCCCTACGTCTCACGGAGGACACCTGAAGGTC
TACCTGAACAAGTTCAGACAGTCTCTGCCGGACAGCGTGAAGGTGGTCATTCTTTACTGATGGAGCAGACGGA
GATCTGGCTGATTTACACAGAGCATCTGAGAACCTCCGCCAAGAAGGAGTCCGTGCCTTGATCCTGGTGGGCCCTT
GAACGAGTGGTCAACTTGGAGCGGCTAATGCATCTGGAGTTTGGGCGAGGGTTTATGTATGACAGGCCCTGAGG
CTTAACCTGCTGGACTTGGATTATGAACTAGCGGAGCAGCTTGACAACATTGCCGAGAAAGCTTGCTGTGGGGTT
CCCTGCAAGTGCTCTGGGCAGAGGGGAGACCGCGGGCCCATCGGCAGCATCGGGCCAAAGGGTATCTCTGGAGAA
GACGGCTACCGAGGCTATCCTGGTGTGAGGGTGGACCCGGTGAGCGTGGTCCGCTGGTGTGAACGGCACTCAA
GGTTTTCCAGGGCTGCCCGGCCAGAGAGGAGTAAAGGGCTCTCGGGGATTCCCAGGAGAGAAGGGCGAAGTAGGA
GAAATTGGACTGGATGGTCTGGATGGTGAAGATGGAGACAAAGGATTGCCTGGTTCTTCTGGAGAGAAAGGGAAT
CCTGGAAGAAGGGGTGATAAAGGACCTCGAGGAGAGAAAGGAGAAAGAGGAGATGTTGGGATTGAGGGGACCCG
GGTAACCCAGGACAAGACAGCCAGGAGAGAGGACCCAAAGGAGAAACCGGTGACCTCGGCCCATGGGTGTCCA
GGGAGAGATGGAGTACCTGGAGGACCTGGAGAACTGGGAAGAAATGGTGGCTTTGGCCGAAGGGGACCCCCGGA
GCTAAGGGCAACAAGGGCGGTCTGGCCAGCCGGGCTTTGAGGGAGAGCAGGGGACCAGAGGTGCACAGGGCCCA
GCTGGTCTGCTGGTCTCTCAGGGCTGATAGGAGAACAAGGCATTCTGGACCTAGGGGAAGCGGAGGTGCCCGT
GGCGCTCCTGGAGAACGAGGCAGAACCGGTCCACTGGGAAGAAAGGGTGAGCCCGGAGAGCCAGGACCAAAGGA
GGAATCGGGAACCCGGGCCCTCTGTTGGGAGACGGGAGATGACGGGAGAGACGGAGTTGGCAGTGAAGGACGCAGA
GGCAAAAAGAGGAGAAAGAGGATTTCTGGATACCCAGGACCAAGGGTAACCCAGGTGAACCTGGGCTAAATGGA
ACAACAGGACCCAAAGGCATCAGAGGCCGAAGGGGAAATTCGGGACCTCCAGGGATAGTTGGACAGAAGGGGAGA
CCTGGCTACCCAGGACAGCTGGTCCAAGGGCAACAGGGGCGACTCCATCGATCAATGTGCCCTCATCCAAGC
ATCAAAGATAAATGCCCTTGCTGTTACGGGCCCTGGAGTGCCCGTCTTCCCAACAGAACTAGCCTTTGCTTTA
GACACCTCTGAGGGAGTCAACCAAGACACTTTCGGCCGGATGCGAGATGTGGTCTTGAGTATTGTGAATGTCTG
ACCATTGCTGAGAGCAACTGCCCGACGGGGGCCCGGTGGCTGTGGTCACCTACAACAACAGGTGACCACGGAG
ATCCGGTTTGCTGACTCCAAGAGGAAGTCGGTCTCTGGACAAGATTAAGAACCTTCAGGTGGCTCTGACATCC

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FIGURE 212C

AAACAGCAGAGTCTGGAGACTGCCATGTCGTTTTGTGGCCAGGAACACATTTAAGCGTGTGAGGAACGGATTCTTA
ATGAGGAAAGTGGCTGTTTTCTTCAGCAACACACCCACAAGAGCATCCCCACAGCTCAGAGAGGCTGTGCTCAAA
CTCTCAGATGCGGGGATCACCCCTTGTTCTTACAAGGCAGGAAGACCGGCAGCTCATCAACGCTTTGCAGATC
AATAACACAGCAGTGGGGCAIGCGCTTGTCTGCTGCAGGGAGAGACCTCACAGACTTCTGGAGAATGTCCTC
ACGTGTCATGTTTGCTTGGACATCTGCAACATCGACCCATCCTGTGGATTGGCAGTTGGAGGCCTTCTTCAGG
GACAGGAGAGCGGCAGGGAGTGATGTGGACATCGACATGGCTTTTCATCTTAGACAGCGCTGAGACCACCACCTG
TTCCAGTTCAATGAGATGAAGAAGTACATAGCGTACCTGGTCAGACAACCTGGACATGAGCCAGATCCCAAGGCC
TCCCAGCACTTCGCCAGAGTGGCAGTTGTGTCAGCAGCGCCCTCTGAGTCCGTGGACAATGCCAGCATGCCACCT
GTGAAGGTGGAATTTCTCCCTGACTGACTATGGCTCCAAGGAGAAGCTGGTGGACTTCTTCAGCAGGGGAATGACA
CAGTTGCAGGGAAACAGGGCCTTAGGCAGTGCCATTGAATACACCATAGAGAATGTCTTTGAAAGTGCCCCAAAC
CCACGGGACCTGAAAATTGTGGTCTGATGCTGACGGGCGAGGTGCCGGAGCAGCAGCTGGAGGAGGCCAGAGA
GTATCCTGTCAGGCCAAATGCAAGGGCTACTTCTTCGTGGTCTGGGCATTGGCAGGAAGGTGAACATCAAGGAG
GTATACACCTTCGCCAGTGAGCCAAACGACGCTTCTTCAAATTAGTGGACAAGTCCACCAGCTCAACGAGGAG
CCTTTGATGCGCTTCGGGAGGCTGTTGCCGTCCTTCGTGACAGTGAAAATGCTTTTTTACTTGTCCCCAGATATC
AGGAAACAGTGTGATTGGTTCCAAGGGGACCAACCCACAAGAACCCTTGTAAGTTTGGTCACAAACAAGTAAAT
GTTCCGAATAACGTTACTTCAAGTCTACATCCAACCCAGTGACGACAACGAAGCCGGTGACTACGACGAAGCCG
GTGACCACCACAACAAAGCCTGTAACCACCACAACAAAGCCTGTGACTATTATAAATCAGCCATCTGTGAAGCCA
GCCGCTGCAAAGCCGGCCCCCTGCGAAACCTGTGGCTGCCAAGCCTGTGGCCACAAGACGGCCACTGTTAGACCC
CCAGTGGCGGTGAAGCCAGCAACAGCAGCGAAGCCTGTAGCAGCAAAGCCAGCAGCTGTAAGACCCCCGCTGCT
GCTGCAAAACCAGTGGCGACCAAGCCTGAGGTCCCTAGGCCACAGGCAGCCAAACCAGCTGCCACCAAGCCAGCC
ACCACTAAGCCCGTGGTTAAGATGCTCCGTGAAGTCCAGGTGTTTGTAGATAACAGAGAACAGCGCCAAACTCCAC
TGGGAGAGGCCTGAGCCCCCGGTCCTTATTTTTATGACCTCACCGTCACCTCAGCCCATGATCAGTCCCTGGTT
CTGAAGCAGAACCTCACGGTCACGGACCGCGTCATTGGAGGCTGCTCGCTGGGCAGACATACCATGTGGCTGTG
GTCTGTACTCTGAGGTCTCAGGTGAGAGCCACCTACCACGGAAGTTTCAGTACAAAGAAATCTCAGCCCCACCT
CCACAGCCAGCAAGGTGAGCTTCTAGTTCAACCATCAATCTAATGGTGAGCACAGAACCATTGGCTCTCACTGAA
ACAGATATATGCAAGTTGCCGAAAGACGAAGGAACCTGACAGGGATTTTCATATTAAATGGTACTATGATCCAAAC
ACCAAAGCTGTGCAAGATTCTGGTATGGAGGTGTGGTGGAAACGAAAACAAATTTGGATCACAGAAAGAATGT
GAAAAGGTTTGGCTCCTGTGCTCGCCAAACCCGGAGTCATCAGTGTGATGGGAACCTAAGCGTGGGTGGCCAAC
ATCATATACCTCTTGAAGAAGAAGGAGTCAGCCATCGCCAACTTGCTCTGTAGAGCTCCGGGTGTAGATTCCC
TTGCACTGTATCATTTTCATGCTTTGATTTTACACTCGAACTCGGGAGGGAACATCCTGCTGCATGACCTATCAGTA
TGGTGCTAATGTGTCTGTGGACCCTCGCTCTCTGTCTCCAGCAGTTCTCTCGAATACTTTGAATGTGTGTAACA
GTTAGCCACTGCTGGTGTATTATGTGAACATTCCATCAATCCAAATTCCTCTGGAGTTTCATGTTATGCTGTT
GCAGGCAATGTAAAGTCTAGAAAATAATGCAATGTACGGCTACTCTATATACTTTTGCTTGGTTCATTTTTT
TTCCCTTTTAGTTAAGCATGACTTTAGATGGGAAGCCTGTGTATCGTGGAGAAACAAGAGACCAACTTTTTTCATT
CCCTGCCCCCAATTTCCCAGACTAGATTTCAAGCTAATTTTCTTTTCTGAAGCCTTAACAAATGATCTAGTTC
AGAAGGAAGCAAAATCCCTTAATCTATGTGCACCGTTGGGACCAATGCCTTAATTAAGAATTTAAAAAAGTTGT
AATAGAGAATATTTTTGGCATTCCTCTCAATGTTGTGTGTTTTTTTTTTTGTGTGCTGGAGGGAGGGGATTTAA
TTTTAATTTTAAATGTTTAGGAAATTTATACAAAGAACTTTTTAATAAAGTATATTGAAAGTTTAAAAA
AAAAAA

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FIGURE 213

MRKHRHLPVAVFCLFLSGFPTTHAQQQQADVKNGAAADIIFLVDSSWTIGEEHFQLVREFLYDVVKS LAVGEND
FHFALVQFNGNPHTEFLLNTYRTKQEVLSHISNMSYIGGTNQTGKGLEYIMQSHLTKAAGSRAGDGPVQVIVVLT
DGHSKDGLALPSAELKSADVNVAIGVEDADEGALKEIASEPLNMHMFNLENFTSLHDIVGNLVCVHSSVSPER
AGDTETLKDITAQDSADIIFLIDGSNNTGSVNFVILDFLVNLEKLP IGTQQIRVG VVQFSDEPRMTFSLDTYS
TKAQVLGAVKALGFAGGELANIGLALDFVVENHETRAGGSRVEEGVPQVLVLISAGPSSDEIRYGVVALKQASVF
SFGLGAQAASRAELQHIATDDNLVFTVPEFRSFGDLQEKLLPYIVGVAQRHIVLKPPTIIVTQVIEVNRDIVFLV
DGSSALGLANFNAI RDFIAKVIQRLEIGQDLIQVAVAQYADTVRPEFYFNTHPTKREVITAVRKMKPLDGSALYT
GSALDFVRNNLFTSSAGYRAAEGIPKLLVLITGKSLDEISQPAQELKRSSIMAFAGNKGADQAELEEIAFDSS
LVFIPAEFRAAPLQGMPLGLLAPLRTLSTGTPVHNSNRDIIFLLDGSANVGKTNFPYVRDFVMNLVNSLDIGNDN
IRVGLVQFSDTPVTEFSLNTYQTKSDILGHLRQLQQLGGSGLNTGSALSIVYANHFTEAGGSRIREHVPQLLLLL
TAGQSEDSYLOAANALTRAGILTFVCVGASQANKAELEQIAFNPSLVYLMDDFSSLPALPQQLIQPLTTYVSGGVE
EVPLAQPESKRDILFLFDGSANLVGQFPVVRDFLYKI IDELVNKP EGTRIAVAQYSDDVKVESRFDEHQSKPEIL
NLVKRMKIKTGKALNLGYALDYAQR YIFVKSAGSRIEDGVLQFLVLLVAGRSSDRVDGPASNLKQSGVVPFIFQA
KNADPAELEQIVLSPAFILAAESLPKIGDLHPQIVNLLKSVHNGAPAPVSGEKDVVFLLDGSEGVRS GFPLLEKF
VQRVVESLDVGQDRVRVAVVQYSDRTRPEFYLN SYMNKQDVVNAVRLTLLGGPTPNTGAALEFVLNRNIVSSAG
SRITEGV PQLLIVLTADRSGDDVRNPSVVVKRGGAVPIGIGIGNADITEMQTI SFIPDFAVAIPTFRQLGT VQQV
ISERV TQLTREELSRLQPVLPSPGVGGKRDVVFLIDGSQSAGPEFYVRTLIERLVLDVGFDTTRVAVIQ
FSDDPKAEFLNNAHSSKDEVQNAVQRLRPKGGRQINVGNALEYVSRNIFKRPLGSRIEEGVPQFLVLISSGKSDD
EVVVP AVELKQFGVAPFTIARNADQEELVKISLSPEYVFSVSTFRELP SLEQKLLTPITTLTSEQIQKLLASTRY
PPPVREFREL PNIEERIMNSFGPSAATPAPPVGTTPPPSRPEKKKADIVFLDGSINFRRDSFQEVLRVFSEIVD
TVYEDGDSIQVGLVQYNSDPTDEFFLKDFSTKRQIIDAINKVYKGGRHANTKVGLEHLRVNHVPEAGSRLDQR
VPQIAFVITGGKSVEDAQDVSLALTQRGVKVFVAVGVNRIDSEEVGKIASNSATAFRVGNVQELSELSEQVLETLH
DAMHETLCPGVTDAAKACNLDVILGFDGSRDQNVFVAQKGFESKVDAILNRISQMRHVSCSGGRSPTVRVSVVAN
TPSGPVEAFDFDEYQPEMLEKFRNMRSQHPYVLTEDTLKVYLNKFRQSSPDSVKVVIHFTDGADGDLADLHRASE
NLRQEGVRALILVGLERVNLERLMHLEFGRGFMYDRPLRLNLLDLYELAEQLDNIAEKACCGVPCKCSGQRGD
RGPIGSIGPKGIPGEDGYRGYPGDEGGPGERGPPGVNGTQGFQGC PGQRGVKGSRGFPGEKGEVGEIGLDGLDGE
DGDKGLPGSSGEKGNPGRRGDKGPRGEKGERGDVGIRGDPGNPGQDSQER

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FIGURE 214

GTTGGTGAGCATCATGGCAACCGTTACAGCCACAACCAAAGTCCCGGAGATCCGTGATGTAACAAGGATTGAGCG
AATCGGTGCCCACTCCACATCCGGGGACTGGGGCTGGACGATGCCTTGGAGCCTCGGCAGGCTTCGCAAGGCAT
GGTGGGTGAGCTGGCGGCACGGCGGGCGGCTGGCGTGGTGCTGGAGATGATCCGGGAAGGGAAGATTGCCGGTCG
GGCAGTCCTTATTGCTGGCCAGCCGGGCACGGGGAAGACGGCCATCGCCATGGGCATGGCGCAGGCCCTGGGCCC
TGACACGCCATTACAGCCATCGCCGGCAGTGAATCTTCTCCCTGGAGATGAGCAAGACCGAGGCGCTGACGCA
GGCCTTCCGGCGGTCCATCGGCGTTCGCATCAAGGAGGAGACGGAGATCATCGAAGGGGAGGTGGTGGAGATCCA
GATTGATCGACCAGCAACAGGGACGGGCTCCAAGGTGGGCAAACTGACCCTCAAGACCACAGAGATGGAGACCAT
CTACGACCTGGGCACCAAGATGATTGAGTCCCTGACCAAGGACAAGGTCCAGGCCGGGGACGTGATCACCATCGA
CAAGGCGACGGGCAAGATCTCCAAGCTGGGCGGCTCCTTCACACGCGCCCGCGACTACGACGCTATGGGCTCCCA
GACCAAGTTCGTGCAGTGCCAGATGGGGAGCTCCAGAAACGCAAGGAGGTGGTGCACACCGTGTCCCTGCACGA
GATCGACGTCATCAACTCTCGCACCCAGGGCTTCCTGGCGCTCTTCTCAGGTGACACAGGGGAGATCAAGTCAGA
AGTCCGTGAGCAGATCAATGCCAAGGTGGCTGAGTGGCGCGAGGAGGGCAAGGCGGAGATCATCCCTGGAGTGCT
GTTTCATCGACGAGGTCCACATGCTGGACATCGAGAGCTTCTCCTTCCTCAACCGGGCCCTGGAGAGTGACATGGC
GCCTGTCTGATCATGGCCACCAACCGTGGCATCACGCGAATCCGGGGCACCAGCTACCAGAGCCCTCACGGCAT
CCCCATAGACCTGCTGGACCGGCTGCTTATCGTCTCCACCACCCCTACAGCGAGAAAGACACGAAGCAGATCCT
CCGCATCCGGTGCAGGAAGAAGATGTGGAGATGAGTGAGGACGCCTACACGGTGCTGACCCGCATCGGGCTGGA
GACGTCACTGCGCTACGCCATCCAGCTCATCACAGCTGCCAGCTTGGTGTGCCGGAACGCAAGGGTACAGAAGT
GCAGGTGGATGACATCAAGCGGGTCTACTCACTCTTCTGGACGAGTCCCGCTCCACGCAGTACATGAAGGAGTA
CCAGGACGCCTTCTCTTCAACGAACTCAAAGGCGAGACCATGGACACCTCTCAGTTGGATGTCATCCCCCGAC
CCCACCCTGTTTTCCACCAGATTCTGACACTGTGACTCTGTATAAATGGTTGGGAAGCTGC

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FIGURE 215

MATVTATTKVPEIRDVTRIERIGAHSHIRGLGLDDALEPRQASQGMVGQLAARRAAGVVLEMIREGKIAGRAVLI
AGQPGTGKTAIAMGMAQALGPDTPFTAIAGSEIFSLEMSKTEALTQAFRRSIGVRIKEETEIIEGEVVEIQIDRP
ATGTGSKVGKLTLLKTTMETIYDLGTMIESLTKDKVQAGDVITIDKATGKISKLGRSFTTRARDYDAMGSQTKFV
QCPDGELQKRKEVVHTVSLHEIDVINSRTQGFLALFSGDTGEIKSEVREQINAKVAEWREEGKAEIIPGVLFIDE
VHMLDIESFSFLNRALES DMAPVLIMATNRGITRIRGTSYQSPHGIPIDLLDRLLIVSTTPYSEKDTKQILRIRC
EEEDVEMSEDAYTVLTRIGLETSRYAIQLITAASLVCRKRKGTEVQVDDIKRVYSLFLDESRSTQYMKEYQDAF
LFNELKGETMDTS

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FIGURE 216

GAGCAGCGCGCCTGACGGGACCAAGGCGGCGGGAGTCTGCGGTGCTTCCCTCGGCTGTGGACCGGGCGGCACGC
ACGCGGTGACAGGGTAACATGGCGGATGCGGAAGTAATTATTTTGCCAAAGAAACATAAGAAGAAAAGGAGCGGA
AGTCATTGCCAGAAGAAGATGTAGCCGAAATACAACACGCTGAAGAATTTCTTATCAAACCTGAATCCAAAGTTG
CTAAGTTGGACACGTCTCAGTGGCCCTTTTGCTAAAGAATTTTGATAAGCTGAATGTAAGGACAACACACTATA
CACCTCTTGATGTGGTTCAAATCCTCTGAAGAGAGAGATTGGGGACTATATCAGGACAGGTTTCATTAATCTTG
ACAAGCCCTCTAACCCTCTTCCCATGAGGTGGTAGCCTGGATTGACGATACTTCGGGTGGAGAAGACAGGGC
ACAGTGGTACTCTGGATCCCAAGGTGACTGGTTGTTTAATCGTGTGCATAGAACGAGCCACTCGCTTGGTGAAGT
CACAAACAGAGTGCAGGCAAAGAGTATGTGGGGATTGTCCGGCTGCACAATGCTATTGAAGGGGGGACCCAGCTTT
CTAGGGCCCTAGAACTCTGACAGGTGCCCTTATTCCAGCGACCCCCACTTATTGCTGCAGTAAAGAGGCAGCTCC
GAGTGAGGACCATCTACGAGAGCAAAATGATTGAATACGATCCTGAAAGAAGATTAGGAATCTTTGGGTGAGTT
GTGAGGCTGGCACCTACATTTCGGACATTATGTGTGCACCTTGGTTTGTATTGGGAGTTGGTGGTCAGATGCAGG
AGCTTCGGAGGGTTCTGAGTCAATGAGTGAAAAGGACCACATGGTGACAATGCATGATGTGCTTGATGCTC
AGTGGCTGTATGATAACCAAGGATGAGAGTTACCTGCGGCGAGTTGTTTACCCTTTGGAAAAGCTGTTGACAT
CTCATAAACGGCTGGTTATGAAAGACAGTGCAGTAAATGCCATCTGCTATGGGGCCAAGATTATGCTTCCAGGTG
TTCTTCGATATGAGGACGGCATTGAGGTCAATCAGGAGATTGTGGTTATCACCACCAAAGGAGAAGCAATCTGCA
TGGCTATTGCATTAATGACCACAGCGGTCTCTCTACCTGCGACCATGGTATAGTAGCCAAGATCAAGAGAGTGA
TCATGGAGAGAGACATTACCCTCGGAAGTGGGGTTTAGGTCCAAAGGCAAGTCAGAAGAAGCTGATGATCAAGC
AGGGCCTTCTGGACAAGCATGGGAAGCCCACAGACAGCACCTGCCACCTGGAAGCAGGAGTATGTTGACTACA
GTGAGTCTGCCAAAAAAGAGGTGGTTGCTGAGTGGTAAAAGCCCCGAGGTAGTTGCCGAAGCAGCAAAAACTG
CGAAGCGGAAGCGAGAGAGTGAGAGTGAAAGTGACGAGACTCCTCCAGCAGCTCCTCAGTTGATCAAGAAGGAAA
AGAAGAAGAGTAAGAAGGACAAGAAGGCCAAAGCTGGTCTGGAGAGCGGGGCCGAGCCTGGAGATGGGGACAGTG
ATACCACCAAGAAGAAGAAGAAGAAGAAGCAAAAGAGGTAGAATTGGTTTCTGAGTAGTGAAGGCCACTTG
AAGCTGGAGGAGAACTAAAGCCTTATTGAGAAAAACATGTTATAGATCCTTTTGTGCTGAGAGAGTGGAACATA
GGTCTAGACAGGGTGAAGAGTTCTGGCACATTTTAGCTGCTACTTTGAGACCTCGGTGATGTTACCTGGTGTGG
TCATCCCATCTTGTCTGTTTAAAGGATATGGGTGGTGAAAGATGAAAGAGGCAGAGTTTATCCCAATGACTTCT
CTGTTTGAAGTTGGGAAGCCTCACCTTCAGACCCAGTAACTGTCCGCAGCTGTCTGCTAGTGGTTGTCTTAACATC
GTAGTCTAGTTTGCATTTTTTAAATCCCCTCTGTTTAAAAGGTTTGTAAAACAAAAACAAAACTAAGTCTGC
TCAGTGAAATGCTGTAGAACCCTAAATAAGTGGTAGAAGAGTGTCACTGAATTTTGTCTCTGAATTCAGTATAAC
TGAGTTTTGTCCATGCTGGTGTCTGGGTTATAGGCCTGATGGGCCTGGTAGTTTTCCATCTTGTCTGCGCTAGA
GGTCAGTCCCTTGCACCTCCTCAAAGCTTGTGTACAGTGCTCACCTAAATCCATCTGACTACTTGTCTCTGTGCC
CTCTTGTTTTAGGCCTCGTTTACTTTTAAAAATGAAATTGTTTATTGCTGGGAGAAGATGTTGTAATTTTAC
TTATTAAAGTCAACTTGTTAAGTTTTTATGTATTCCTGTTGGGTTTTCTTGTGATCTCATGCTAGCAGAGCAA
AAATTGTAAATATTTTGATTAAAAATCTAGGGACCTTTATGTCCTATTGGAATTCGATATCAA

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FIGURE 217

MADAEVILPKKKKKKKERKSLPEEDVAEIQHAEFLIKPESKVAKLDTSQWPLLLKNFDKLNVRTTHYTPLACG
SNPLKREIGDYIRTGFINLDKPSNPSSHEVVAVIRRLRVEKTGHSGTLDPKVTGCLIVCIERATRLVKSQQSAG
KEYVGIVRLHNAIEGGTQLSRALETLTGALFQRPPLIAAVKRQLRVRTIYESKMIEYDPERRLGIFWVSCEAGTY
IRTLCVHLGLLLGVGGMQELRRVRSGVMSEKDHMTMHDVLDQWLYDNHKDESYLRRVVYPLEKLLTSHKRLV
MKDSAVNAICYGAKIMLPGLRYEDGIEVNQEIVVITTKGEAICMAIALMTTAVISTCDHGIVAKIKRVIMERDT
YPRKWGLGPKASQKKLMIKQGLLDKHGKPTDSTPATWKQEYVDYSES AKKEVVAEVVKAPQVVAEAAKTAKRKRE
SESEDETPPAAPQLIKKEKKKSKDKKAKAGLESGAEPGDGSDTTKKKKKKKAKEVELVSE

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FIGURE 218

TCTGGGCGCGCGGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCCGTGTCCCGCCCGACCCGCGCCCGCGGATGC
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCGCGG
CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCCTTCTCCTCCTCCGGGAACCCGCTCGTGACCTGGACG
TGGACGCCAACGGGAAGCCGCTCGGCCCGTGGTGTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCTT
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG
ACGAGAACCTTTACACTGAAGCACGTGGGGCCAGGTGTCTGTCCATGGCTAATGCTGGTCCTAACACCAACGGCT
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGTCACGTCAAAGAGG
GCATGGACGTCGTGAAGAAAATAGAATCTTTCCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG
ACTGTGGCCAGTTGAGCTAATCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG
GCCGCGTTGGGCTGTGAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA
GGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCCTAATACCCACCCTTCTCAGACCTCA
TTTCTGGGCATCTTTGTGGACATGATGTACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCAGCCCAGATTCT
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTAAAAGTCTTTTCTTGACCAAGGGGGACAG
TCAGTTTTGCAAAAGGACTCTAATACCTGTTTAATATTGCTTCTTAATTGGGATAATTTAATTAACAAGATTGA
CTAGAAGTGAACTGCAACACTAACTTCCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCCC
AGAGCTTGGCTTTTGAACACAACTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTCTCCTGGTTACTG
TGAAGCCTGTTGGTTTGTGCTGTGCTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC
GGAGGGGAAGCATTTCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG
CATAAAACATTTCTGGAACATGGATTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 219

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA
ENFRALCTGEKFGYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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FIGURE 220

TCTGGGCGCGCGGACGTACGTTTGAGTTCTGTGTTCTCCCCGCCCGTGTCCCGCCGACCCGCGCCCGCGATGC
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCCGCGG
CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCTCTCTCTCTCTCTCCGGGAACCCGCTCGTGTACCTGGACG
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCTCT
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCCTAACACCAACGGCT
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTTCGGTCACGTCAAAGAGG
GCATGGACGTCGTGAAGAAAAAGAAATCTTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTATCACAG
ACTGTGGCCAGTTGAGCTAATCTGTGGCCAGGGTGTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG
GCCGCGTTGGGCTGTGAGCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCTGAGGAA
GGCTGTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCCTAATACCCACCCCTTCTCACGACCTCA
TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCAGCCAGATTC
ATCTGTGCCTTGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAGTCTTTTCTTGACCAAGGGGGACAG
TCAGTTTTGCAAAGGACTCTAATACCTGTTTAAATATGTCTTCTAATTGGGATAATTTAATTAACAAGATTGA
CTAGAAGTGAAGTGAACACTAAGTCTTCCCGTGCTGTGGTGACCTGAGTTGGTGACACAGGCCACAGACCCC
AGAGCTTGGCTTTTGAAACACAAGTCTAGGGCTTTTGTGAAGGTTCCCGCTGAGATCTTCTCTCTGTTACTG
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGTAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC
GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATCAATCTACTCATGATGTGTTATG
CATAAAACATTTCTGGAACATGGATTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA
AAAAAAAAAAAAAAAA

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FIGURE 221

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA
ENFRALCTGEKGFYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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FIGURE 222

TGCCGCCGTCCCGCCCGCCAGCGCCCCAGCGAGGAAGCAGCGCGCAGCCCCGCGGCCAGCGCACCCGCAGCAGCG
CCCCGAGCTCGTCCGCGCCATGTTCCAGGCGGCCGAGCGCCCCCAGGAGTGGGCCATGGAGGGCCCCCGCGACGG
GCTGAAGAAGGAGCGGCTACTGGACGACCGCCACGACAGCGGCCTGGACTCCATGAAAGACGAGGAGTACGAGCA
GATGGTCAAGGAGCTGCAGGAGATCCGCCTCGAGCCGAGGAGGTGCCGCGCGGCTCGGAGCCCTGGAAGCAGCA
GCTCACCGAGGACGGGGACTCGTTCTCTGCACCTTGCCATCATCCATGAAGAAAAGGCACTGACCATGGAAGTGAT
CCGCCAGGTGAAGGGAGACCTGGCTTTCCTCAACTTCCAGAACAACCTGCAGCAGACTCCACTCCACTTGGCTGT
GATCACCAACCAGCCAGAAATTGCTGAGGCACCTTCTGGGAGCTGGCTGTGATCCTGAGCTCCGAGACTTTCGAGG
AAATACCCCCCTACACCTTGCTGTGAGCAGGGCTGCCTGGCCAGCGTGGGAGTCCTGACTCAGTCTGCACCAC
CCCGCACCTCCACTCCATCCTGAAGGCTACCAACTACAATGGCCACACGTGTCTACACTTAGCCTCTATCCATGG
CTACCTGGGCATCGTGGAGCTTTTGGTGTCTTGGGTGCTGATGTCAATGCTCAGGAGCCCTGTAATGGCCGGAC
TGCCCTTCACCTCGCAGTGGACCTGCAAAATCCTGACCTGGTGTCACTCCTGTTGAAGTGTGGGGCTGATGTCAA
CAGAGTTACCTACCAGGGCTATTCTCCCTACCAGCTCACCTGGGGCCGCCAAGCACCCGGATACAGCAGCAGCT
GGGCCAGCTGACACTAGAAAACCTTCAGATGCTGCCAGAGAGTGAGGATGAGGAGAGCTATGACACAGAGTCAGA
GTTACCGGAGTTCACAGAGGACGAGCTGCCCTATGATGACTGTGTGTTTGGAGGCCAGCGTCTGACGTTATGAGT
GCAAAGGGGGCTGAAAGAACATGGACTTGTATATTTGTACAAAAAAAAGTTTTATTTTTCTAAAAAAGAAAAA
GAAGAAAAAATTTAAAGGGTGTACTTATATCCACACTGCACACTGCCTAGCCCCAAAACGTCTTATTGTGGTAGGA
TCAGCCCTCATTTTGTGCTTTTGTGAACTTTTGTAGGGGACGAGAAAGATCATTGAAATTCAGAAAACTTC
TTTTAAACCTCACCTTTGTGGGGTTTTTGGAGAAGGTTATCAAAAATTTTCATGGAAGGACCACATTTTATATTTA
TTGTGCTTCGAGTGACTGACCCAGTGGTATCCIGTGACATGTAACAGCCAGGAGTGTTAAGCGTTCAGTGATGT
GGGGTGAAAAGTTACTACCTGTCAAGGTTTGTGTTACCCTCCTGTAAATGGTGTACATAATGTATTGTTGGTAAT
TATTTTGGTACTTTTATGATGTATATTTATTAAAGAGATTTTACAAATG

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FIGURE 223

MFQAAERPQEWAMEGPRDGLKKERLLDDRHD SGLDSMKDEEYEQMVKELQEIRLEPQEVPRGSEPWKQQLTEDGD
SFLHLAI IHEEKALTMEVIRQVKGDLAFLNFQNNLQQTPLHLAVITNQPEIAEALLGAGCDPELRDFRGNTPLHL
ACEQGCLASVGVLTQSCTTPHLHSILKATNYNGHTCLHLASIHGYLGIVELLVSLGADVNAQEP CNGRTALHLAV
DLQNPDLVSLLLKCGADVNRVTYQGYSPYQLTWGRPSTRIQQQLGQLTLENLQMLPESEDEESYDTESEFTEFTE
DELPYDDCVFGGQRLTL

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FIGURE 224

CGGCGGAGCTGGTCCCGTTGTGCTGCGGGCGCCGCGCGGCCTGCAGTCCCGGGCCCGCGCCCGCGCCCGCCG
GCCCCGCCATGGAGCCCGGCCCGACGGCCCCGCCGCTCCGGCCCCCGCCGCCATCCGCGAGGGCTGGTTCCGCGA
GACCTGCAGCCTGTGGCCCCGCCAGGCCCTGTGCTGCAGGTGGAGCAGCTGCTCCACCACCGGCGCTCGCGCTA
CCAGGACATCCTCGTCTTCCGCGAGTAAGACCTATGGCAACGTGCTGGTGTGGACGGTGTGCATCCAGTGCACGGA
GAGAGACGAGTTCTCCTACCAGGAGATGATCGCCAACCTGCCTCTCTGCAGCCACCCCAACCCGCGAAAGGTGCT
GATCATCGGGGGCGGAGATGGAGGTGTCTGCGGGAGGTGGTGAAGCACCCCTCCGTGGAGTCCGTGGTCCAGTG
TGAGATCGACGAGGATGTGCATCCAAGTCTCCAAGAAGTTCTGCCAGGCATGGCCATTGGCTACTCTAGCTCGAA
GGTGACCCTACATGTGGGTGACGGTTTTGAGTTTCATGAAACAGAATCAGGATGCCTTCGACGTGATCATCACTGA
CTCCTCAGACCCCATGGGCCCCGCCGAAAGTCTCTTCAAGGAGTCTATTACCAGCTCATGAAGACAGCCCTCAA
GGAAGATGGTGTCTCTGCTGCCAGGGCGAGTGCAGTGGCTGCACCTGGACCTCATCAAGGAGATGCGGCAGTT
CTGCCAGTCCCTGTTCCTCGTGGTGGCCTATGCCTACTGCACCATCCCCACCTACCCACGCGGCCAGATCGGCTT
CATGCTGTGCAGCAAGAACCCGAGCACGAACCTCCAGGAGCCGGTGCAGCCGCTGACACAGCAGCAGGTGGCGCA
GATGCAGCTGAAGTACTACAACCTCCGACGTGCACCGCGCCGCCCTTTGTGCTGCCGAGTTTGCCCGCAAGGCCCT
GAATGATGTGAGCTTGAGCCCCAGGCGCCACCACTGATGCCACCCAGGACCTCGGACCTTGGAGCCTGCGGGGTGCC
TCGGCCCCCTCCAGCCCCGGGCGGACCTCCTGCTGGCTCTCGCCACCAACCAAGTGTTACAAGCCCCAGAATGC
TGCCCGGCCTGCCCTGCTGGGCGGACTGTCTGTGTGTCTGTCTCTGCGCTTCCACCTCCAAGCCTATACCAGC
TGTGTACAGCGCCATCTCTCTGCCCTTCTGTTGCCCCCG

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FIGURE 225

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSLQVEQLLHRRSRYQDILVFRSKTYGNVLVLDGVIQCTERD
EFSYQEMIANLPLCSHPNPRKVLIIIGGGDGGVLREVVKHPSVESVVQCEIDEDVIQVSKKFLPGMAIGYSSSKVT
LHVGDGFEFMKQNQDAFDVITDSSDPMGPAESLFKESYYQLMKTALKEDGVLCCQGECEWLHLDLIKEMRQFCQ
SLFPVVAYAYCTIPTYPGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMQLKYNSDVHRAAFVLPEFARKALND
VS

[illegible]

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FIGURE 227

MAGLPRIKETQRLAEPVPGIKAEPDESARYFHVVIAGPDSPFEGGTFKLELFLPEEYPMAAPKVRFMTKI
YHPNVDKLGRICLDILKDKWSPALQIRTVLLSIQALLSAPNPDDPLANDVAEQWKTNEAQAIETARAWTRLYAMN
NI

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FIGURE 228

CTAGTTTCTAAGGATCATGCTCTGCGAGCCAGGATTCCCGATCCAGAGACAATGGCCCCGATGGGATGGAGCCCGA
AGGCGTCATCGAGAGTAAGTGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCG
TGGCATCTACGCCTATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCGAGCCATTCTACCTTGTATCAAGGGTTA
TGATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAACGGCCACATTGCCATATCGATTCTGCAGCAGATTGA
ATTAGATCTAAAAGCCACCCAGGCCTTGGTCCTAGCACCCACTCGAGAATTGGCTCAGCAGATACAGAAGGTGGT
CATGGCACTAGGAGACTACATGGGCGCCTCCTGTACGCCTGTATCGGGGGCACCAACGTGCGTGCTGAGGTGCA
GAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTGATATGCTTAACCGGAGATA
CCTGTCCCCCAAATACATCAAGATGTTTGTACTGGATGAAGCTGACGAAATGTTAAGCCGTGGATTCAAGGACCA
GATCTATGACATATTCCAAAAGCTCAACAGCAACACCCAGGTAGTTTTGCTGTGTCAGCCACAATGCCTTCTGATGT
GCTTGAGGTGACCAAGAAGTTCATGAGGGACCCCATTCGGATTCTTTGTCAAGAAGGAAGAGTTGACCCTGGAGGG
TATCCGCCAGTTCTACATCAACGTGGAACGAGAGGAGTGGAAAGCTGGACACACTATGTGACTTGTATGAAACCCCT
GACCATCACCCAGGCAGTCATCTTCATCAACACCCGGAGGAAGGTGGACTGGCTCACCGAGAAGATGCATGCTCG
AGATTTCACTGTATCCGCCATGCATGGAGATATGGACCAAAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTT
TGGCTCTAGCAGAGTTTTGATTACCACTGACCTGCTGGCCAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCAT
CAACTATGACCTTCCCACCAACAGGGAAAACCTATATCCACAGAATCGGTTCGAGGTGGACGGTTTGGCCGTAAAGG
TGTGGCTATTAACATGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATTGAGACCTTCTACAACACCTCCAT
TGAGGAAATGCCCCCTCAATGTTGCTGACCTCATCTGAGGGGCTGTCTGCCACCCAGCCCCAGCCAGGGGCTCAAT
CTCTGGGGGCTGAGGAGCAGCAGGAGGGGGAGGGAAGGGAGCCAAGGGATGGACATCTTGTCAATTTTTTTTCTT
TGAATAAATGTCACTTTTTTGAGGCAAAAGAAGG

FIGURE 229

MSASQDSRSRDNGPDGMEPEGVIESNWNEIVDSFDDMNLSESLLRGIYAYGF EKPSAIQQRAILPCIKGYDVIAQ
AQSGTGKTATFAISILQQIELDLKATQALVLAPTRELAQQIQKVVMA LGDYM GASCHACIGGTNVRAEVQKLQME
APHIIVGTPGRVFDMLNRRYLSPKYIKMFVLDEADEMLSRGFKDQIYDIFQKLNSNTQVVLLSATMPSDVLEVTK
KFMRDPIRILVKKEELTLEGIRQFYINVEREEWKDLTCLDYETLTITQAVIFINTRRKVDWLTEKM HARDFTVS
AMHGDMDQKERDVIMREFRSGSSRVLITD L LARGIDVQQVSLVIN YDLPTNRENYIHRIGRGGRFGRKG VAINM
VTEEDKRTL RDIETFYNTSIEEMPLNVADLI

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FIGURE 230

GCACGATGAGCTCAATCGGCACTGGGTATGACCTGTCAGCCTCTACATTCTCTCCTGACGGAAGAGTTTTTCAAG
TTGAATATGCTATGAAGGCTGTGGAAAATAGTAGTACAGCTATTGGAATCAGATGCAAAGATGGTGTGTCTTTG
GGGTAGAAAAATTAGTCCTTTCTAACTTTATGAAGAAGGTTCCAACAAAAGACTTTTAAATGTTGATCGGCATG
TTGGAATGGCAGTAGCAGGTTTGTGGCAGATGCTCGTTCTTTAGCAGACATAGCAAGAGAAGAAGCTTCCAAC
TCAGATCTAACTTTGGCTACAACATTCCACTAAAACATCTTGCAGACAGAGTGGCCATGTATGTGCATGCATATA
CACTCTACAGTGCTGTTAGACCTTTTGGCTGCAGTTTCATGTTAGGGTCTTACAGTGTGAATGACGGTGCGCAAC
TCTACATGATTGACCCATCAGGTGTTTCATACGGTTATTGGGGCTGTGCCATCGGCAAAGCCAGGCAAGCTGCAA
AGACGGAAATAGAGAAGCTTCAGATGAAAGAAATGACCTGCCGTGATATCGTTAAAGAAGTTGCAAAAATAATTT
ACATAGTACATGACGAAGTTAAGGATAAAGCTTTGAACTAGAACTCAGCTGGGTTGGTGAATTAATAATGGAA
GACATGAAATTGTTCCAAAAGATATAAGAGAAGAAGCAGAGAAATATGCTAAGGAATCTCTGAAGGAAGAAGATG
AATCAGATGATGATAATATGTAACATTTACTCCAGCATCTATTGTATTTTAAATTTCTACTCCAGTCCAATGTAA
CTATTTAGCCCTG

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FIGURE 231

MSSIGTGYDLSASTFSPDGRVFQVEYAMKAVENTSSTAIGIRCKDGVVFGVEKLVLKLYEEGSNKRLFNVDHRVG
MAVAGLLADARSLADIAREEASNFRSNGYNIPLKHLADRVAMYVHAYTLYSAVRPFGCSFMLGSYSVNDGAQLY
MIDPSGVSYGYWGCAIGKARQAAKTEIEKLQMKEMTCRDIVKEVAKIIYIVHDEVKDKAFELELSWVGELTNGRH
EIVPKDIREEAKEYAKESLKEEDESDDDNM

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FIGURE 232

ATTCTGAGCCGAGCCCGGTGCCAAGCGCAGCTAGCTCAGCAGGCGGCAGCGCGGCCTGAGCTTCAGGGCAGCCA
GCTCCTCCCGGTCTCGCCTTCCTCGCGGTCAGCATGAAAGCCTTCAGTCCCGTGAGGTCCGTTAGGAAAAACAGC
CTGTCGGACCACAGCCTGGGCATCTCCCGGAGCAAACCCCTGTGGACGACCCGATGAGCCTGCTATAACAATG
AACGACTGCTACTCCAAGCTCAAGGAGCTGGTGCCAGCATCCCCAGAACAAGAAGGTGAGCAAGATGGAAATC
CTGCAGCACCTCATCGACTACATCTTGGACCTGCAGATCGCCCTGGACTCGCATCCCACTATTGTCAGCCTGCAT
CACCAGAGACCCGGGCAGAACAGCGCTCCAGGACGCGCTGACCACCCTCAACACGGATATCAGCATCCTGTCC
TTGCAGGCTTCTGAATTCCTTCTGAGTTAATGTCAAATGACAGCAAAGCACTGTGTGGCTGAATAAGCGGTGTT
CATGATTTCTTTTATTCTTTGCACAACAACAACAACAATTCACGGAATCTTTTAAGTGCTGAACTTATTTT
TCAACCATTTCACAAGGAGGACAAGTTGAATGGACCTTTT

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FIGURE 233

MKAFSPVRSVRKNSLSDHSLGISRSKTPVDDPMSLLYNMDCYSKLELVPSIPQNKKVSKMEILQHLIDYILDL
QIALDSHPTIVSLHHQRPQGNQRSRTPLTTLNTDISILSLQASEFPSEIMSNDSKALCG

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FIGURE 234A

ATTGCAACACATGCAGCTGCCTGGAGAGAGGGAGCCGGTGTCTACGTGAGAGCCGCCGCCGCCGAGCCGCCG
CCGGGGAGGAGCAGCCGCTGCCGCCCAGGACTGGGCCCTTAGGGAGGAGGAGGCGAGAAGATGGCGGACGACCCC
AGTGCTGCCGACAGGAACGTGGAGATCTGGAAGATCAAGAAGCTCATTAGAGCTTGGAGGCGGCCGCCGGAAT
GGCACCAGCATGATATCATTGATCATTCTCCCAAAGACCAGATTTCACGAGTGGCAAAAATGTTAGCGGATGAG
TTTGGAACATGCATCTAACATTAAGTCACGAGTAAACCGCCTTTCAGTCCTGGGAGCCATTACATCTGTACAACAA
AGACTCAAACCTTTATAACAAAGTACCTCCAAATGGTCTGGTTGTATACTGTGGAACAATTGTAACAGAAGAAGGA
AAGGAAAAGAAAGTCAACATTGACTTTGAACCTTTCAAACCAATTAATACGTCATTGTATTTGTGTGACAACAA
TTCCATACAGAGGCTCTTACAGCACTACTTTAGATGATAGCAAGTTTGGATTCAATGTAATAGATGGTAGTGGT
GCACTTTTTGGCACACTCCAAGGAAACACAAGAGAAGTCCTGCACAAATTCAGTGTGGATCTCCCAAAGAAACAC
GGTAGAGGAGGTGAGTCAGCTCAGCCTTGCCTTTTGCCCGTTAAGAATGGAAAAGCGACATAACTATGTTCCGAAAGTA
GCAGAGACTGCTGTGCAGCTGTTTATTTCTGGGGACAAAGTGAATGTGGCTGGTCTAGTTTTAGCTGGATCCGCT
GACTTTAAACCTGAACCTAAGTCAATCTGATATGTTTATGATCAGAGGTTACAATCAAAAGTTTTAAATTAGTTGAT
ATATCCTATGGTGGTGAATGGATTCAACCAAGCTATTGAGTTATCTACTGAAGTCCTCTCCAACGTGAAATTC
ATTCAAGAGAAGAAATTAATAGGACGATACTTTGATGAAATCAGCCAGGACACGGGCAAGTACTGTTTTGGCGTT
GAAGATACACTAAAGGCTTTGGAAATGGGAGCTGTAGAAATCTAATAGTCTATGAAATCTGGATATAATGAGA
TATGTTCTTCATTGCCAAGGCACAGAAGAGGAGAAATCTCTATCTAATCCAGAGCAAGAAAGGATAAATCT
CATTTCACAGACAAAGAGACCGGACAGGAACATGAGCTTATCGAGAGCATGCCCTGTTGGAATGGTTTGTCAAC
AACTATAAAAAATTTGGAGCTACGTTGGAATTTGTACAGATAAATCACAAGAAGGGTCTCAGTTTGTGAAAGGA
TTTGGTGAATTTGGAGGTATCTTGGCGTACCGAGTAGATTTCCAGGGAATGGAATACCAAGGAGGAGACGATGAA
TTTTTTGACCTTGATGACTACTAGGTAGTCGACATGGGTCCGGCAAAACGTGCCTCACCTCCAGCATCCAACCC
AAGGAGCATACCCATGGTGAATCCAAACAGATCCCTGCGTTACAATTGGAACATTTCCAGAACTTAATCCATGA
AGCAGCCTACAAGTTCTCTAAACGCCACTTTGGACTAATTTAAAAAGAAATCCAGTTTTACTTTTACTGG
ATGGTGAAATTTGGTGTCTCTTGTATTTTATGAAAAAATGATTTTTTTAACCTTCATACATAGAAGCAAAATA
CTTTAACTGCTGTAAACCTTCAAAAGTTAATAGAAGTGAGATCATACTGGTTTGTCTTATTTTATTGATTGGAGAA
AAATTAATTTGCTGCATTTCGCAGTGACCCATTACATGGCATTCTCAGCTTAGACTGCGTAAAGAAATATAT
GTGGTGAATTTGGAAACCTTTCTCTCTTGGTCTCTGTTTAAATGTTGAAAGGGTGAGCTAATAGGAGGCATTT
CAACTTCACTCCCTCACGCTACCCCGTCCCTCCAGACTGGCAGTTTCAAGGATGCAATTCATTGCAAAATC
AAACTGACTCATGAAGCATTGGGCCAGTGCACTGTTTACTTCCATCTGTTTGCAGACACATTTGTGCCCGCGT
TTGGGAGCCCTTTGTATCAATGTTCTGACAAGGGTCCCTATAACCTTAACCTACTCGAAACCGGTTTGGGATGGA
TATGATGGGCTTCTGTGCTATTGCTGGGATTGGGAGAAATAAAACATGCAATTTAAGTGAAGCGAAGAAATTT
AAAGAGGATTTTATTTTGGCTTGGGTCAATCCTTGTTAAAGGGAGGTGGATGTGTTTCTTGTGTGGATGGCAT
GAGATTATGTAATGTTTTGATTTATTAATGAAGTGAAGGTTTTTCACAGGAACGACAGACATGTATGACTG
CATGTAATTATAAACTCCTGACCTCCTGGTGGGTTGGAGCATCTGTTTCAATGTGGGACTTACAAGCACTTCT
CACATGAGAAATTAGGGGCGGGTGGGAAGGGATGGGACACAGCTTCTGGCACCATGGATTTAAGACCATGTTGGA
TCCAAAGTTGGCCTGAAACCTGAAGCTGATGCTTACAGCTGGGCTGTAAGTCAGACTGAACCCAGCTGATA
TGCAAGGTGATGGCGTGCCAGGGTGGTGACAGTTGAACAAAGTGTATAGTACGTGCCAGTGGTAGCGATGGAAA
AAAGTATACCAATGGACTTTGAAGGACCAAGGTTTTAAAGTCAATTGGTATCACCTCCACACTGACTAGGGT
AGTGGGGTGCAATTTGGTTTTCAAATGGGTACTTTTAACTTTAGTGCCTGACTGCTGTTCTTTACTGACTTGA
TTCAGTCACTCGTAGCTTTATTGGTCTGAACAGCTCCTTGTTCCAGGTTACAGACCTGCCTATCGTTCCAATA
ATCCTGTTTCACTTGAATGAAGGAGTATGTCTTAAATGTAAAGTTTCTGGTTCTCACACTGTACTCTGAGGTCC
AAATACTGTCTGTAATGTGTAACCTGATGTCTCAACCCCTGTGAGAAGAGTCCATTATTTGGTGTTCACCAAC
GTGGGAGACTTCACCGGAACAGGCTTTTTGCTTTGGGCTCTGCTATTGTTTGCAGAACACCCAAGAGCGAGCA
AACACGCTCTCTTACAGCAGTACCTTAGGGTTTTGCCATTGTAATGGGTCTGATGTGATATGACAAGACCAGA
GAAATGGATGTAAATTTACATTTTGAATATGCTTGTGTTTACATGATACATTTAGGGTATGCAGCTCCTTT
TGTAGTTTTTATTTTACTATTTAAGTTTGGAAATGATGCCAAATTTTGTATTTCTTTAATCAATGTGTTCTCT
TCGGTGATATATATTGCATTATATATTGATGTGTGATCAATATATATTGATATGTATTACACTTACACATACAA
ACACATATAAGAGGGGGTGAACCCGTAGCCTTTGCATTCTCTATAGCCTCTGCAGAGAGATACTAAGCAGCAAA

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FIGURE 234B

ATCTTGGTGTGTGATGTACAGAAATGGAGAAGAGTATTAAACCATATTTAAG

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FIGURE 235

MADDP SAADR NVEIWKIKKLIKSL EAARGNGTSMISLIIPPKDQISRVAKMLADEFGTASNIKSRVNRLSVLGAI
TSVQQRLKLYNKVPPNGLVVYCGTIIVTEEGKEKKVNIDFEPFKPINTSLYLCDNKFHTEALTALLSDDSKFGFIV
IDGSGALFGTLQGNTREVLHKFTVDLPKKHGRGGQSALRFARLRMEKRHNYVRKVAETAVQLFISGDKVNVAGLV
LAGSADFKTELSQSDMFDQRLQSKVLKLVDISYGGENGFNQAIELSTEVL SNVKF IQEKKLIGRYFDEISQDTGK
YCFGVEDTLKALEMGAVEILIVYENLDIMRYVLHCQGTEEEKILYLTPEQEKDKSHFTDKETGQEHELIESMPLL
EWFANNYKKFGATLEIVTDKSQEGSQFVKGFGGIGILRYRVDFQGMEYQGGDDEFFDLDDY

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FIGURE 236

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTTCGGGTGCTGGCGGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG
GAAGGAACCATGGCCAACGTGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTGGTTTCACCCTGAGGAACTGGTAGATTACACGAGCTGTGCTCAG
AACTGGATCTATGAATGACAGGAGGGCAGACCACATTGCTTTTACATCCATTTCCTCCTTCCCATGGGCAGA
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACTTCATCATAATTGGAGGGAAGCTCTTGAGCTGTGAG
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAATGCTTCCTCCCAGC

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FIGURE 237

MANCERTFIAIKPDGVQRLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPVVA
MVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNWI
YE

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FIGURE 238

CCGCCATTTTGTGAGAAGCAAGGTGGCCTCCACGTTTCTGAGCGTCTTCTTCGCTTTTGCTCGACCGCCCTT
GACCACAGACATGCTCTCGGGATCGGTTCCGGAGTCGTGGCGGTGGCGGTGGTGGCTTCCACAGGCGTGGAGGAGG
CGGCGGCCGCGGCGGCTCCACGACTTCCGTTCTCCGCCGCCGCGCATGGGCCTCAATCAGAATCGCGGCCCCAT
GGGTCTTGCCCCGGGCCAGAGCGGCCCTAAGCCTCCGATCCCGCCACCGCCTCCACACCAACAGCAGCAACAGCC
ACCACCGCAGCAGCCACCGCCGAGCAGCGCCACCGCATCAGCCGCCCGCATCCACAGCCGCATCAGCAGCA
GCAGCCGCCGCCACCGCCGAGGACTCTTCCAAGCCGTCGTTGCTCAGGGACCGGCCCGCTCCCGGAGTAGG
CAGCGCACCACAGCCTCCAGTCGGCCCCGCCGCCACTCCACCAACCTCGGGGGCCCCGCCAGGGTCCGGGCC
AGGCCGACTCCGACCCCGCCGCTGCAGTCACCTCGGCCCTCCCGGGCGCGGCCACCCACCCGCCAAGCAG
CGGGGTCCCTACCACACCTCTCAGGCCGGAGGCCCGCCGCTCCGCCCGCGCAGTCCCGGGCCCCGGTCCAGG
GCCTAAGCAGGGCCAGGTCCGGGTGGTCCCAAAGCGGCAAAATGCCITGGCGGGCCGAAGCCAGGTGGCGGCC
GGGCCTAAGTACGCTGGCGGCCACCCCAAGCCGCCCATCGAGGCGCGGGGAGCCCCGCGGGGGCCGCCAGCA
CCACCCGCCCTACCACAGCAGCATCACCAGGGGCCCGCCCGCGCGGGCCCGCGGCCGAGGAGAGAGAT
CTCGGACTCGGAGGGGTTAAAGCCAATTTGTCTCTCTTGAGGAGGCTGGAGAGAAACTTACACACAGCGATG
TCGTTGTTTGTGGGAATCTACCTGCTGATATCAGGAGGATGAATTCAAAGACTATTTGCTAAATATGGAGA
ACCAGGAGAAGTTTTATCAACAAAGGCAAAGGATTTCGATTTATTAAGCTTGAATCTAGAGCTTTGGCTGAAAT
TGCCAAAGCCGAATGGATGATACCCCATGAGAGGTAGACAGCTTCGAGTTCGCTTTGCCACACATGCTGCTGC
CCTTCTGTTCGTAACTTTTACCTTATGTTTCCAATGAAGTGTGGAAAGAGCCTTTAGCCAATTTGGTCTTAT
TGAAAGGGCTGTTGTAATAGTGGATGATCGTGGAAGATCTACAGGAAAGGCATTGTTGAATTTGCTTCTAAGCC
AGCAGCAAGAAAGGCATTTGAACGATGCAGTGAAGGTGTTTTCTTACTGACGACAACCTCCTCGTCCAGTCATTGT
GGAACCACTTGAACAACCTAGATGATGAAGATGGTCTTCTGAAAAACTTGCCAGAAGAATCCAATGTATCAAAA
GGAGAGAGAAACCCCTCCTCGTTTTGCCAGCATGGCACGTTTGAGTACGAATATTCTCAGCGATGGAAGTCTTT
GGATGAATGGAAGAACAGCAAGGGAACAAGTTGAAAAAACATGAAAGATGCAAGAGACAAATGGAAAGTGA
AATGGAAGATGCCTATCATGAACATCAGGCAAAATCTTTTGCGCCAAGATCTGATGAGACGACAGGAAGAAATTAAG
ACGCATGGAAGAACTTCACAATCAAGAAATGCAGAAACGTAAGAAATGCAATTGAGGCAAGAGGAGGAACGACG
TAGAAGAGAGGAAGAGATGATGATTCTCAACGTGAGATGGAAGAACAAATGAGGCGCCAAAGAGAGGAAAGTTA
CAGCCGAATGGGCTACATGGATCCACGGGAAAGAGACATGCGAATGGGTGGCGGAGGAGCAATGAACATGGGAGA
TCCCTATGGTTTCAAGAGGCCAGAAATTTCCACCTTAGGAGGTGGTGGTGGCATAGGTTATGAAGCTAATCCTGG
CGTTCCACCAGCAACCATGAGTGGTTCCATGATGGGAAGTGACATGCGTACTGAGCGCTTTGGGCAGGGAGGTGC
GGGGCCTGTGGGTGGACAGGGTCTTAGAGGAATGGGGCCTGGAACCTCAGCAGGATATGGTAGAGGGAGAGAAGA
GTACGAAGGCCCAACAAAAACCCGATTTCAGATGTGATATTTAGGCTTTTATTCCAGTTTGTGTTTTTTT
TGTTTAGATACCAATCTTTTAAATCTTGCATTTTAGTAAGAAAGCTATCTTTTATGGATGTTAGCAGTTTATT
GACCTAATATTTGTAAATGGTCTGTTTGGGCAGGTAAAATTATGTAATGCAGTGTGGAACAGGAGAATTTTTT
TTTCTTTTTATTTCTTTATTTTTCTTTTTTACTGTATAATGTCCCTCAAGTTTATGGCAGTGTACCTTGTC
ACTGAATTTCCAAAGTGTACCAATTTTTTTTTTTTACTGTGCTTCAAATAAATAGAAAAATAGTTATAATATTG
GATCTTCAACTTTGCCATTGCTTCTATGCATATTAGGCTACGTATTCCACATTGAAAGCATGAGAGTGTCTA
GGCCTTTGAATGGCATATGCCATTTCTGGGAATGCATCTGGAGGCTAAGTATTGCTTTCTACAAATAATTGCCC
CCTTTGTTTTTAAAAAGAAAGATGCATATTGAAGTAGTTTGATGATTTGTTTGGCATATAGGAAGCACGCTGGTG
CTAAGTATTTTTTAAATGGTTATGTAAGCAAAGCTGAACTGTAAATCTTCAGGAATATGTATTAAGATTGTGGAA
TGGGTGTAAGACAATTGGTAGGGGGTGAAGTGGGTTTGATTAATGGATCTTTTATGGCCCTATGATCTATCCT
TTACTTGAAAGCTTTTGAAGTGGAAAGTCAATTTGTTGCATTCCCCATTTCTGTTTTTAAAGACCAACA
AATCTCAAGCCCTATAAATGGCTTGATTGAATTTTACATTTGAATTAAGATGTTAAACATGAAAAAA

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FIGURE 239

MSRDRFRSRGGGGGGFHRRGGGGGRGGLHDFRSEPPGMGLNQNRGPMGPGPGQS GPKPPIPPPPPHQQQQQPPPO
QPPPOQPPPHQPPPHQPHQQQPPPPPPQDSSKEPVVAQGPAPGVGSAPPASSSAPPATPPTSGAPP GSGPGPT
PTPPPAVTSAPP GAPPPTPPSSGVPTTPPQAGGPPPPAAVPGPGPGPKQGP GPGGPKGGKMPGGPKPGGGPGLS
TPGGHPKPPHRGGGEPRGGRQHHPYHQHHQGPPPGGPGGRSEEKISDSEGFKANLSLLRRPG EKYTYQRCRLF
VGNLPADITEDEFKRLFAKYGEPGEVFINKGKGFGFIKLESRALAEIAKAELDDTPMRGRQLRVRFATHAAALSV
RNLSPIVSNELLEAFSQFGPIERAVVIVDDRGRSTGKGIVEFASKPAARKAFERCSEGVFLTTTTPRPVIVEPL
EQLDDEDGLPEKLAQKNPMYQKERETPPRFAQHGTFEYEYSQRWKS LDEMEKQQREQVEKNMKDAKD KLESEMED
AYHEHQANLLRQDLMRQEELRRMEELHNQEMQKRKEMQLRQEEERRRREEEMMI RQREMEEQMR RQREESYSRM
GYMDPRERDMRMGGGGAMNMGDPYSGGGQKF PPLGGGGGIGYEANPGVPPATMSGSMMSGDMRTERFGQGGAGPV
GGQGRGMGPGTPAGYGRGREEYEGPNKKPRF

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FIGURE 240

GCCCGTCCCGCCGCGCCGCGCCAGCCATGAGCTCCACGCAGTTCAACAAGGGCCCCCTCGTACGGGCTGTCGGCC
GAGGTCAAGAACC GGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTC
ACCGGCCTCTCCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACCTATCTTATGCACACTCATGAACAAG
CTACAGCCGGGCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACCTC
ATCAAGGCCATGGTCAGCTACGGCATGAACCTGTGGACCTGTTTCGAGGCCAACGACCTGTTTGAGAGTGGGAAC
ATGACGCAGGTGCAGGTGTCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGAC
ATTGGCGTCAAGTACTCGGAGAAGCAGGAGCGGAATTTTCGACGATGCCACCATGAAGCTGGCCAGTGCCTCATC
GGGCTGCAGATGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCAGGAGAAGGCATCTCTAT
GACCCCAAGAACCATATCCTGCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGCGCC
AGCCAGGTGGGCATGACGGCTCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGAC
AACTCCTCCATGTCCCTGCAGATGGGCTACACGCGAGGGCGCCAACCAGAGCGGCCAGGTCTTCGGCCTGGGCCGG
CAGATATATGACCCCAAGTACTGCCCGCAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACC GGCGACTGCCCG
GACCCGGGGGAGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGCGCGCTACTTGAGGCTCCCAGCACGCTCTC
TCCCCACATCGTCTTCCCATCTGGGTTTTTGGGTTTTTCTGTGTTTTTCATCTTTTTTTTTTTTTTTTCTTGACCCG
TTCAGTGCTGCCAGTCAACCAAGGGTCTGTGAGTGTGAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCCTTTGC
CTTGATCCTTCGCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCATATCCCAATACGTGTAGGGCG
AGGGTCCCTGCTGGCACATTGAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGT
TTCTGGTTGCCTCGCCTCTTCCCCCTTTTGTGCTGAGCTGAGCAGTTTGTGGTTTTCTATGCCCGCAAGTTTCAGGAAG
TATTCACAAAAGAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGT
CCCCTGGGAAAGGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCAAGTGAAGTGGATTGCTAGGACCTTC
AGATCAACAGACTTCAGACCCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAA
ATTCTGAGTTGTTGGGGCTAAGCCTGACCCCTCTCCATGCTCCCCGCCCAACTCACTCTGGCCTCAGTAGATT
TTTTTTTCAGTTGTGGTTGTTGGCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCG
GGCTCAAGCGATTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCCGGCTAATTTT
TGTATTTTTAGTAGAGATGGGGTTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCG
CCCGCCTCCGCTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGGCCAGGCCCTCAGTAGGTTTTAAGGA
GTCCCCAGCCCTCCTCCCTTCTGGGCCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAG
TACTGCACAGGGACCCCCACCCAGGGGCCCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAA
TAAACCTTTGTTTGTAGGAAG

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FIGURE 241

MSSTQFNKGPSYGLSAEVKNRLLSKYDPQKEAELRTWIEGLTGLSIGPDFQKGLKDGITILCTLMNKLQPGSVPKI
NRSMQNWQHLENLSNFIKAMVSYGMNPVDLFEANDLFESGNMTQVQVSLLAGKAKTKGLQSGVDIGVKYSEKQ
ERNFDDATMKAGQCVIGLQMGTKCASQSGMTAYGTRRHLYDPKNHILPPMDHSTISLQMGTKCASQVGMTAPG
TRRHIYDTKLGTDKCDNSSMSLQMGYTQGANQSGQVFGGLGRQIYDPKYCPQGTVADGAPSGTGDCPDGGEVPEYP
PYYQEEAGY

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FIGURE 242

CTGAAGATGCGGGCTGCTGTAGGACGGTTGCTCCGAGCGTCGGTTGCCCGACATGTGAGTGCCATTCCCTTGGGGC
ATTTCTGCCACTGCAGCCCTCAGGCCTGCTGCATGTGGAAGAACGAGCTTGACAAATTTATTGTGTTCTGGTTCC
AGTCAAGCAAAATTATTTCAGCACCAGTTCCTCATGCCATGCACCTGCTGTCACCCAGCATGCACCCATTTTAAAG
GGTACAGCCGTTGTCAATGGAGAGTTCAAAGACCTAAGCCTTGATGACTTTAAGGGGAAATATTGGTGCTTTTC
TTCTATCCCTTGGATTTACCTTTGTGTGTCTACAGAAATTGTTGCTTTTAGTGACAAAGCTAACGAATTTACAC
GATGTGAACGTGTGAAGTTGTGCGAGTCTCAGTGGATTCCCACTTTAGCCATCTTGCCCTGGATAAATACACCAAGA
AAGAATGGTGGTTTGGGCCACATGAACATCGCACTCTTGTGAGACTTAAGCAGATTTCCTGAGACTACGGT
GTGCTGTTAGAAGGTTCTGGTCTTGCACTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTG
AGCGTCAACGATCTCCAGTGGGCCGAAGCGTGGAGAAACCTCCGCTTGGTGAAGGCGTTCCAGTATGTAGAA
ACACATGGAGAAGTCTGCCAGCGAAGTGGACACCGGATTCTCCTACGATCAAGCCAAGTCCAGCTGCTTCCAAA
GAGTACTTTTCAAGGTAATCAGTAGATCACCCTGTGTATCTGCACCTTCTCAACTGAGAGAAGAACCACAGT
TGAAACCTGCTTTTATCATTTCAGATGGTTATTTGTAGAAGGCAAGGAACCAATTATGCTTGTATTTCATAAGT
ATTACTCTAAATGTTTTGTTTTGTAATTCGGCTAGGACCTTTTAAACATGGTTAGTTGCTAGTACAGGAATCG
TTTATTGGTAACATCTTGGTGGCTGGCTAGCTAGTTTCTACAGAACATAATTTGCCTCTATAGAAGGCTATTCTT
AGATCATGTCTCAATGGAAACACTCTTCTTTCTTAGCCTTACTTGAATCTTGCCTATAATAAAGTAGAGCAACAC
ACATTGAAAGCTTCTGATCAACGGTCTGAAATTTTCATCTTGAATGTCTTTGTATTAACTGAATTTTCTTTTA
AGCTAACAAAGATCATAATTTTCAATGATTAGCCGTGTAACCTCTGCAATGAATGTTTATGTGATTGAAGCAAAAT
GTGAATCGTATTATTTTAAAAAGTGGCAGAGTGACTTAACTGATCAIGCATGATCCCTCATCCCTGAAATTGAGT
TTATGTAGTCATTTTACTTATTTTATTCATTAGCTAACTTTGTCTATGTATATTTCTAGATATTGATTAGTGTA
TCGATTATAAAGGATATTTATCAAATCCAGGGATTGCATTTTGAAATTATAATTATTTTCTTGTGCTGAAGTATTC
ATTGTAAACATACAAATAACATATTTAAACAAAAA

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FIGURE 243

MAAAVGRLLRASVARHVSAIPWGISATAALRPAACGRTSLTNLLCSGSSQAKLFSTSSSCHAPAVTQHAPYFKGT
AVVNGEFKDLSLDDFKGKYLVLFFYPLDFTFVCPTEIVAFSDKANEFHDVNCEVVAVSVDSHFSLAWINTPRKN
GGLGHMNIALLSDLTKQISRDYGVLLLEGSGLALRGLFIIDPNGVIKHLVNDLPVGRSVEETLRLVKAFQYVETH
GEVCPANWTPDSPTIKPSPAASKEYFQKVNQ

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FIGURE 244

TGCCCGGAATTCCGGGGAGGGAGAAGCCCCCTTTGGCCTGCCTTACGGAAGCCTGCGAGGGAGGGTGGTGTCCACT
GCCCAGTTCCTGTGTCCCGATGCCAGCGCCACGCAGCGCAAGAGTCAGGAGAAGCCGCGGGAGATCATGGACGCG
GCGGAAGATTATGCTAAAGAGAGATATGGAATATCTTCAATGATACAATCACAAGAAAAACCAGATCGAGTTTG
GTTCCGGTTAGAGACTTGACAATACAAAAAGCTGATGAAGTTGTTTGGGTACGTGCAAGAGTTCATACAAGCAGA
GCTAAAGGGAAACAGTGCTTCTTAGTCCTACGTACAGCAGCAGTTTAAATGTCCAGGCTCTTGTGGCGGTGGGAGAC
CATGCAAGCAAGCAGATGGTTAAATTTGCTGCCAACATCAACAAAGAGAGCATTGTGGATGTAGAAGGTGTTGTG
AGAAAAGTGAATCAGAAAATTGGAAGCTGTACACAGCAAGACGTTGAGTTACATGTTTCAAGATTATGTGATC
AGTTTGGCTGAACCCCGTCTGCCCTGCAGCTGGATGATGCTGTTCCGGCTGAGCAAGAAGGAGAAGAGGAAGGA
AGAGCTACTGTTAACAGGATACAAGATTAGACAACAGAGTCATTGATCTTAGGACATCAACTAGTCAGGCAGTC
TTCCGTCTCCAGTCTGGCATCTGCCATCTCTTCCGAGAACTTTAATTAACAAAGGTTTTGTGGAAATCCAACT
CCTAAAATTATTTAGCTGCCAGTGAAGGAGGAGCAATGTTTTTACTGTGTCATATTTTAAAAATAATGCATAC
CTGGCTCAGTCCCCACAGCTATATAAGCAAATGTGCATTGTGCTGATTTTGAGAAGGTTTTCTCTATTGGACCA
GTATTCAGAGCGGAAGACTCTAATACCCATAGACATCTAACTGAGTTTGTGGTTTGGACATTGAAATGGCTTTT
AATTACCATTACCAGAAAGTTATGGAAGAAATTGCTGACACCATGGTACAAATATTCAAAGGACTTCAAGAAAGG
TTTCAGACTGAAATTCAAACAGTGAATAAACAGTTCCCATGTGAGCCATTCAAATTTTTGGAGCCAACTCTAAGA
CTAGAAATATTGTGAAGCATTGGCTATGCTTAGGGAAGCTGGAGTCGAAATGGGAGATGAAGACGATCTGAGCACA
CCAAATGAAAAGCTGTTGGGTCAATTTGGTAAAGGAAAAGTATGATACAGATTTTATATTCTTGATAAAATATCCA
TTGGCTGTAAGACCTTTCTATACCATGCCTGACCCAAGAAATCCCAAACAGTCCAAGTCTTACGATATGTTTCATG
AGAGGAGAAGAAATATTGTCAGGAGCTCAAAGAATACATGATCCTCAACTGCTAACAGAGAGAGCTTTACATCAT
GGAAATGATTTGGAGAAAATTAAGGCTTACATTGATTCCCTCCGCTTTGGAGCCCCCTCATGCTGGTGGAGGC
ATTGGATTGGAACGAGTTACTATGCTGTTTTCTGGGATTGCATAATGTTTCGTCAGACCTCCATGTTCCCTCGTGAT
CCCAAACGACTCACTCCTTAAATTCACACTTTGCCACTTAACTCCAGTGTGGATGACAGAGCGAGACCCTGCCTC
AAAGAAAGCCACACTT
ATTCTTTTCAGTAACCTGCTAGTGCACAGGCTGTACTTTAGGTACTTAAATATGCACTAGAATAAATTTGCAAG
GCCCTAAATATCACTGTTATTTTGGAGTAATTCAGTATAGGTTGTTTTAAAGAGATTTTTATACTTCAGAC
ATGCATCAGTAGGAAATAACTTGAGAAATTCATATGGTTATGTTACAAATTCATATTCTGTTACTACAGTAAACG
TTAAGAGTTTTAAACAGTTAAGATTGTACAATTTTCTTCTTTCTATATTACAAGGGCCCCAGTGTAAATGTCT
TAGATTTTCAGTATTTGAACCTATTTTTTTAAATCTGTGATTGAGATAAGAATAATTCAGGTAGCATCTGAAAT
TTTAATGAATGTATAATTGGCATATCATGGAAAATTAACCAGAAAGTATCAGTTCTTAAAGTTATGCCCTAGAAA
TTATGTAAAGCTAAACTACTGGTTAGAAAGTATTCAGTGAATATTGTATTAAATTTGTAAATTCATAACTTGAA
TTTCAATAAAATTTTAAAGCT

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FIGURE 245

MPSATQRKSQEKPREIMDAAEDYAKERYGISSMIQSQEKPDRLVRVRDLTIQKADEVVWVRARVHTSRAKGKQC
FLVLRQQQFNVQALVAVGDHASKQMVKFAANINKESIVDVEGVVRKVNQKIGSCTQQDVELHVQKIYVISLAEPR
LPLQLDDAVRPEQEGEEGRATVNQDTRLNDRVIDLRTSTSQAVFRLQSGICHLFRETLINKGFVEIQTPKIISA
ASEGGANVFTVSYFKNNAYLAQSPQLYKQMCICADFEKVFSIGPVFRAEDSNTHRHLETFVGLDIEMAFNYHYHE
VMEEIADTMVQIFKGLQERFQTEIQTVNKQFPCEPFKLEPTLRLEYCEALAMLREAGVEMGDEDDLSTPNEKLL
GHLVKEKYDTDFYILDKYPLAVRPFYTMPDPRNPKQSKSYDMFMRGEEILSGAQRHDPQLLTERALHHGNDLEK
IKAYIDSFRFGAPPHAGGGIGLERVTMLFLGLHNVRQTSMFPRDPKRLTP

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FIGURE 246

ACTTGGCCTTACACTCCGCTCGGCTCACCATGTGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG
CCCCGACCCCGGCCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC
TCCCGGAGCCCGCAGCGGCCCTGCGGGCGCCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGAGGGTCT
CTCTACCCTCGAGTGGTGAGTATCGCCGAAGTGGGCATTGCGGGTGTGCGCTGCCCTGGAGTCACTGGGGAACGA
CCCGACTCCAGAGCCCTGACCTGACCTGTCTCCTGTTTTGTCTCCCCTTAGTCCGGCGCCAGCTGCCAGTCGAGG
AACCGAACCAGCCAAAAGGCTTCTCTTTCTGTGCTCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGG
GTGTGCCGGCGCCCCCTGCCTCCAGAGGACGCCCCTAACGCCGCATCCCTGGCGCCCCACCCCTGTGTCCCCGTCC
TCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACTACGCTCTGGACCTCAGCACTTTCTCCAGCAACACCCGG
CCGCCTTCTTAACTGTGACTCCCCGCACTCCCCAAAAAGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTG
GTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAGGCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCC
GGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGAGGCGCATAGAGACCGAGGCACAGCCAGCTGGGCTAGGC
CGGTGGGAAGGAGAGCGTCGTTAATTTATTTCTTATTGCTCCTAATTAATATTTATATGTATTTATGTACGTCT
CCTAGGTGATGGAGATGTGTACGTAATATTTATTTAACTTATGCAAGGGTGTGAGATGTTCCCTCTGCTGTAAA
TGCAGGTCTCTTGGTATTTATTGAGCTTTGTGGGACTGGTGGAAGCAGGACACCTGGAAGTGGGCAAAGTAGGA
GAAGAAATGGGGAGGACTCGGGTGGGGGAGGACGTCCCGCTGGGATGAAGTCTGGTGGTGGGTGCTAAGTTAG
GAGGTGACTGCATCCTCCAGCATCTCAACTCCGTCTGTCTACTGTGTGAGACTTCGGCGGACCATTAGGAATGAG
ATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCCTTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGTTGGTGGGC
TGTCACGGAGCGACTGTGAGATCGCCTAGTATGTTCTGTGAACACAAATAAAATTGATTTACTGTCTGC

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FIGURE 247

MCHSRSCHPTMTILQAPTPAPSTIPGPRRGSGPEIFTFDPLPEPAAAPAGRPSASRGHRKRSRRVSLPSSGEYRR
SGHSRCALPWSHWGTTRLQSLDLTCLLFCPLVRRQLPVEEPNPAKRLLFLLLTIVFCQILMAEEGVPAPLPED
APNAASLAPTPVSPVLEPFNLTSEPSDYALDLSTFLQQHPAAF

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FIGURE 248A

GC GCGACCGTCCCGGGGGTGGGGCCGGGCGCAGCGGCGAGAGGAGGCGAAGGTGGCTGCGGTAGCAGCAGCGCGG
CAGCCTCGGACCCAGCCCGGAGCGCAGGGCGGCGCTGCAGGTCCCGCTCCCTCCCGTGCCTCCGCCATGG
CCGCCCGGGGACGTGTGCTTGTCTACCTGTCGGCGGGGCTCCTGTCCCGCTCGGCGCAGCCTTCAACTTGG
ACACTCGGGAGGACAACGTGATCCGGAATATGGAGACCCCGGAGCCTTCTCGGCTTCTCGCTGGCCATGCACT
GGCAACTGCAGCCCGAGGACAAGCGGCTGTTGCTCGTGGGGGCCCCGCGCGGAGAAGCGCTTCCACTGCAGAGAG
CCAACAGAACGGGAGGGCTGTACAGCTGCGACATCACCGCCCGGGGCCATGCACGCGGATCGAGTTTGATAACG
ATGCTGACCCACGTGAGAAAGCAAGGAAGATCAGTGGATGGGGGTACCCTCCAGAGCCAAGGTCCAGGGGGCA
AGGTCGTGACATGTGCTCACCGATATGAAAAAGGCAGCATGTTAATACGAAGCAGGAATCCCGAGACATCTTG
GGCGGTGTTATGTCTGAGTCAGAATCTCAGGATTGAAGACGATATGGATGGGGGAGATTGGAGCTTTTGTGATG
GGCGATTGAGAGGCCATGAGAAATTTGGCTCTTGCCAGCAAGGTGTAGCAGCTACTTTTACTAAAGACTTTTCAT
ACATTGTATTTGGAGCCCCGGGTACTTATAACTGGAAGGGATTGTTCTGTGTAGAGCAAAAGAATAACACTTTTT
TTGACATGAACATCTTTGAAGATGGGCTTATGAAGTTGGTGGAGAGACTGAGCATGATGAAAGTCTCGTTCCTG
TTCTGCTAACAGTTACTTAGGTTTTCTTTGGACTCAGGGAAAGGTATTGTTTCTAAAGATGAGATCACTTTTG
TATCTGGTGCTCCAGAGCCAATCACAGTGGAGCGTGGTTTTGCTGAAGAGAGACATGAAGTCTGCACATCTCC
TCCCTGAGCACATATTCGATGGAGAAGGTCTGGCCTCTTCATTTGGCTATGATGTGGCGGTGGTGGACCTCAACA
AGGATGGGTGGCAAGATATAGTTATTGGAGCCCCACAGTATTTGATAGAGATGGAGAAGTTGGAGGTGCAGTGT
ATGCTACATGAACCAGCAAGGCAGATGGAATAATGTGAAGCCAATTCGTCTTAATGGAACCAAGATTCTATGT
TTGGCATTGCAGTAAAAATATTGGAGATATTAATCAAGATGGCTACCCAGATATTGCAGTTGGAGCTCCGTATG
ATGACTTGGGAAAGGTTTTATCTATCATGGATCTGCAATGGAATAAATACCAACCAACACAGGTTCTCAAGG
GTATATCACCTTATTTTGGATATTCAATTGCTGGAACATGGACCTTGATCGAAATTCCTACCCTGATGTTGCTG
TTGGTTCCCTCTCAGATTCAGTAATTTTTAGATCCCGGCTGTGATTAAATTCAGAAAACCATCACAGTAA
CTCCTAACAGAATTGACCTCCGCCAGAAAACAGCGTGTGGGGCGCCTAGTGGGATATGCCTCCAGGTTAAATCCT
GTTTTGAATATACTGCTAACCCCGCTGGTTATAATCCTTCAATATCAATTGTGGGCACACTTGAAGCTGAAAAAG
AAAGAAGAAAATCTGGGCTATCCTCAAGAGTTCAGTTTCGAAACCAAGGTTCTGAGCCCAATATACTCAAGAAC
TAACCTCTGAAGAGGCAGAAACAGAAAGTGTGCATGGAGGAAACCTGTGGCTACAGGATAATATCAGAGATAAAC
TGCGTCCCATTTCCATAACTGCCTCAGTGGAGATCCAAGAGCCAAGCTCTCGTAGGCGAGTGAATCACTTCCAG
AAGTTCTTCAATTCTGAATTCAGATGAACCAAGACAGCTCATATTGATGTTCACTTCTTAAAAGAGGGATGTG
GAGACGACATGTATGTAACAGCAACCTTAACTAGAATATAAATTTGCACCCGAGAAGGAAATCAAGACAAAT
TTTCTTATTTACCAATTCAAAAAGGTGTACCAGAACTAGTTCTAAAAGATCAGAAGGATATTGCTTTAGAAATAA
CAGTGACAAACAGCCCTTCCAACCAAGGAATCCCAAAAAGATGGCGATGACGCCATGAGGCTAAACTGATTG
CAACGTTTCCAGACACTTTAACCTATTCTGCATATAGAGAACTGAGGGCTTTCCCTGAGAAACAGTTGAGTTGTG
TTGCCAACCAAGATGGCTCGCAAGCTGACTGTGAGCTCGGAAATCCTTTTAAAAGAAATTCAAATGTCACTTTTT
ATTTGGTTTTAAGTACAACCTGAAGTCACCTTTGACACCCCATATCTGGATATTAATCTGAAGTTAGAAACAACAA
GCAATCAAGATAATTTGGCTCCAATTACAGCTAAAGCAAAAGTGGTTATTGAAGTGCCTTTATCGGTCTCGGGAG
TTGCTAAACCTTCCAGGTGTATTTGGAGGTACAGTTGTTGGCGAGCAAGCTATGAAATCTGAAGATGAAGTGG
GAAGTTTAATAGAGTATGAATTCAGGGTAATAAACTTAGGTAAACCTCTTACAAACCTCGGCACAGCAACCTTGA
ACATTCAGTGGCCAAAAGAAATTAGCAATGGGAAATGGTTGCTTTATTTGGTGAAAGTAGAATCCAAAGGATTGG
AAAAGGTAACCTTGTGAGCCACAAAAGGAGATAAACTCCCTGAACCTAACGGAGTCTCACAACCTCAAGAAAGAAAC
GGGAAATTACTGAAAAACAGATAGATGATAACAGAAATTTTCTTTATTTGCTGAAAGAAAATACCAGACTCTTA
ACTGTAGCGTGAACGTGAACGTGTGTGAACATCAGATGCCCCGTGCGGGGGCTGGACAGCAAGGCGTCTCTTATTT
TGCGCTCGAGGTTATGGAACAGCACATTTCTAGAGGAATATTCCAACTGAACTACTTGGACATTCTCATGCCGAG
CCTTCATTGATGTGACTGCTGCTGCCGAAAATATCAGGCTGCCAAATGCAGGCACTCAGGTTTCGAGTGACTGTGT
TTCCCTCAAAGACTGTAGCTCAGTATTCGGGAGTACCTTGGTGGATCATCTAGTGGCTATTCTCGCTGGGATCT
TGATGCTTGCTTTATAGTGTATATCTATGGAAGTGTGGTTTCTTCAAGAGAAATAAGAAAGATCATTATGATG
CCACATATCACAAGGCTGAGATCCATGCTCAGCCATCTGATAAAGAGAGGCTTACTTCTGATGCATAGTATTGAT
CTACTCTGTAATTGTGTGGATTCTTTAAACGCTCTAGGTACGATGACAGTGTTCCTCCGATACCATGCTGTAAGG
ATCCGGAAGAAGAGCGAGAGATCAAAGATGAAAAGTATATTGATAACCTTGAAAAAAAACAGTGGATCACAAG
TGGAACAGAAATGAAAGCTACTCATAGCGGGGGCTAAAAAAAAGCTTCACAGTACCCAACTGCTTTTTTC

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FIGURE 248B

CAACTCAGAAATTCAATTTGGATTAAAAAGCCTGCTCAATCCCTGAGGACTGATTTTCAGAGTGACTACACACAGT
ACGAACCTACAGTTTTAACTGTGGATATTGTTACGTAGCCTAAGGCTCCTGTTTTGCACAGCCAAATTTAAACT
GTTGGAATGGATTTTTCTTTAACTGCCGTAATTTAACTTTCTGGGTTGCCTTTGTTTTGGCGTGGCTGACTTAC
ATCATGTGTTGGGGAAGGGCCTGCCAGTTGCACTCAGGTGACATCCTCCAGATAGTGTAGCTGAGGAGGCACCT
ACACTCACCTGCACTAACAGAGTGGCCGTCTAACCTCGGGCTGCTGCGCAGACGTCCATCACGTTAGCTGTCC
CACATCACAAGACTATGCCATTGGGGTAGTTGTGTTTCAACGGAAAGTGCTGTCTTAACTAAATGTGCAATAGA
AGGTGATGTTGCCATCTACCGTCTTTTCCTGTTTCCTAGCTGTGTGAATACCTGCTCAGTCAAATGCATACAA
GTTTCATTCTCCCTTTCACTAAAAACACACAGGTGCAACAGACTTGAATGCTAGTTATACTTATTTGTATATGGT
ATTTATTTTTCTTTCTTTTACAAACCATTTTGTTATTGACTAACAGGCCAAAGAGTCTCCAGTTTACCCTTCAG
GTTGGTTTAAATCAATCAGAATTAGAATTAGAGCATGGGAGGGTCATCACTATGACCTAAATTTACTGCAAAA
AGAAATCTTTATAAATGTACCAGAGAGAGTTGTTTTAATAACTTATCTATAAACTATAACCTCTCCTTCATGAC
AGCCTCCACCCACAAACCCAAAAGGTTTAAGAAATAGAATTATAACTGTAAAGATGTTTATTTTCAGGCATTGGAT
ATTTTTTACTTTTAGAAGCCTGCATAATGTTTCTGGATTTACATACTGTAACTTCAGGAATTCTTGGAGAAGATG
GGTTTATTCACTGAACTCTAGTGCGGTTTACTCACTGCTGCAAACTACTGTATATTTCAGGACTTGAAGAAATGGT
GAATGCCTATGGAAGTAGTGGATCCAACTGATCCAGTATAAGACTACTGAATCTGCTACCAAAACAGTTAATCA
GTGAGTCGAGTGTTCTATTTTTTGTGTTTCTCCTCCCTATCTGTATTCCCAAAAATTACTTTGGGGCTAATTT
AACAGAAGCTTTAAATTGTGTTTTAATTGTAAAAATGGCAGGGGGTGAATTATTACTCTATACATTCAACAGAG
ACTGAATAGATATGAAAGCTGATTTTTTTTAAATTACCATGCTTCACAATGTTAAGTTATATGGGGAGCAACAGCA
AACAGGTGCTAATTTGTTTGGATATAGTATAAGCAGTGTCTGTGTTTTGAAAGAATAGAACACAGTTTGTAGTG
CCACTGTTGTTTTGGGGGGGGCTTTTTTCTTTTCCGGAAAATCCTTAAACCTTAAGATACTAAGGACGTTGTT
TTGGTTGTACTTGGAATTCCTAGTCACAAAATATATTTTGTGTTACAAAATTTCTGTAAAACAGGTTATAACAGT
GTTTAAAGTCTCAGTTTCTTGCTTGGGGAAGTTGTGTCCCTAATGTGTTAGATTGCTAGATTGCTAAGGAGCTGA
TACTTGACAGTTTTTTAGACCTGTGTTACTAAAAAAAGATGAATGTCGGAAAAGGGTGTGGGAGGGTGGTCAA
CAAAGAAACAAAGATGTTATGGTGTTTAGACTTATGGTTGTTAAAAATGTCATCTCAAGTCAAGTCACTGGTCTG
TTTGCAATTTGATACATTTTGTACTAACTAGCATTGTAAAATTTTCATGATTAGAAATTACCTGTGGATATTT
GTATAAAGTGTGAATAAATTTTTTATAAAGTGTTCATTGTTTCGTAACACAGCATTGTATATGTGAAGCAAA
CTCTAAAATTATAAATGACAACCTGAATTATCTATTTTCATCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 249

MAAAGQLCLLYLSAGLLSRLGAAFNLDTREDNVIRKYGDPGSLFGFSLAMHWQLQPEDKRLLLLVGAPRGEALPLQ
RANRTGGLYSCDITARGPCTRIEFDNDADPTSESKEDQWMGVTVQSQPGGKVVTCAHRYEKRQHVNTKQESRDI
FGRCYVLSQNLRIEDDMGGDWSFCDGRLRGHEKFGSCQQGVAATFTKDFHYIVFGAPGTYNWKGIVRVEQKNNT
FFDMNIFEDGPYEVGGETEHDES LVPVPANSYLGFSLD SGKGIVSKDEITFVSGAPRANHSGAVVLLKRDMSAH
LLPEHIFDGEGLASSFGYDVAVVDLNKDGWQDIVIGAPQYFDRDGEVGGAVYVYMNQQGRWNNVKPIRLNGTKDS
MFGIAVKNIGDINQDGYPDIAVGAPYDDLKGKFIYHGSANGINTKPTQVLKGISPFGYSIAGNMDLDRNSYPDV
AVGSLSDSVTIFRSRPVINIQKTIITVTPNRIDLRQKTACGAPSGICLQVKSCFEYTANPAGYNPSISIVGTLEAE
KERRKSGLSSRVQFRNQSEPKEYTQELTLKRQKQKVCMEETLWLQDNIRDKLRPIPI TASVEIQEPSSRRRVNSL
PEVLPILNSDEPKTAHIDVHFLKEGCGDDNVCNSNLKLEYKFCTREGNQDKFSYLP IQKGVPELVLDQKDIALE
ITVTNSPSNPRNPTKGDGDAHEAKLIATFPDTLTYSAYRELRAFPEKQLSCVANQNGSQADCELG NPFKRNSNVT
FYLVLSTTEVTFDTPYLDINLKLETTSNQDNLAPITAKAKVVI ELLLSVSGVAKPSQVYFGGT VVGEQAMKSEDE
VGSLIEYEFRVINLGKPLTNLGTATLNIQWPKEISNGKWL LYLKVESKGLEKVTCEPQKEINSLNLTESHNSRK
KREITEKQIDDNRFSLFAERKYQTLNCSVNVNVCNIRCP LRG LDSKASLILRSRLWNSTFLEEYSKLN YLDILM
RAFIDVTAAAENIRLPNAGTQVRVTVPFSKTVAQYSGVPWWI ILVAILAGILMLALLVFILWKCGFFKR NKDHY
DATYHKA EIHAQPSDKERLTSDA

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FIGURE 250

GGAAACTCCCGCAGACTTCTCTGTAGATCGCTGAGCGATACTTTCGGCAGCACCTCCTTGATTCTCAGTTTTGCT
GGAGGCCGCAACCAGGCCCGCGCCGCCACCATGTTTCGAAATCAGTATGACAATGATGTCAGTGTGGAGCCCC
CAGGGCAGGATTCATCAAATTGAATATGCAATGGAAGCTGTAAACAAGGTCAGCCACAGTTGGTCTGAAATCA
AAAACATCATGCAGTTTTGGTTGCATTGAAAAGGGCGCAATCAGAGCTTGCAGCTCATCAGAAAAAATTCTCCAT
GTTGACAACCACATTGGTATCTCAATTGCGGGGCTTACTGCTGATGCTAGACTGTTATGTAATTTTATGCGTCAG
GAGTGTGGATTCCAGATTTGTATTGATAGACCAGTGCCTGTGTCTCGTCTGTATCTCTAATTGGAAGCAAG
ACCCAGATACCAACACAACGATATGGCCGGAGACCATATGGTGTGGTCTCCTTATTGCTGGTTATGATGATATG
GGCCCTCACATTTTCCAAACCTGTCCATCTGCTAACTATTTTGAAGTGCAGAGCCATGTCCATTGGAGCCCGTTCC
CAATCAGCTCGTACTTACTTGGAGAGACATATGTCTGAATTTATGGAGTGTAAATTTAAATGAACTAGTTAAACAT
GGTCTGCGTGCCTTAAGAGAGACGCTTCCCTGCAGAACAGGACCTGACTACAAAGAATGTTTCCATTGGAATTGTT
GGTAAAGACTTGGAGTTTACAATCTATGATGATGATGATGTGTCTCCATTCTGGAAGGCTTGAAGAAAGACCA
CAGAGAAAGGCACAGCCTGCTCAACCTGCTGATGAACCTGCAGAAAAGGCTGATGAACCAATGGAACATTAAGTG
ATAAGCCAGTCTATATATGTATTATCAAATATGTAAGAATACAGGCACCACATACTGATGACAATAATCTATACT
TTGAACCAAAAGTTGCAGAGTGGTGAATGCTATGTTTTAGGAATCAGTCCAGATGTGAGTTTTTTCCAA
GCAACCTCACTGAAACCTATATAATGGAATACATTTTTCTTTGAAAGGCTCTGTATAATCATTTTCTAGAAGTAT
GGGTATCTATACTAATGTTTTTTATATAAGAACATAGGTGTCTTTGTGGTTTTAAAGACAACGTGTAATAAAAT
TGTTTCACCGCCTGGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 251

MEFNQYDNDVTWSPQGRIHQIEYAMEAVKQGSATVGLKSKTHAVLVALKRAQSELAHQKKILHVDNHIGISIA
GLTADARLLCNFMRQECLDSRFVDRPLPVSRLVSLIGSKTQIPTQRYGRRPYGVGLLIAGYDDMGPHIFQTCPS
ANYFDCRAMSIGARSQSARTYLERHMSEFMECNLNLVKHGLRALRETLPAEQDLTTKNV SIGIVGKDLEFTIYD
DDDVSPFLEGLEERPQRKAQPAQPADEPAEKADPEMEH

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FIGURE 252

GGGGTGACGCAGGCGCAGCGCGGGCTGCGCGCGCTACTGCCCATCCCCGTTGTCCCACTTTTGTTCGCCTCTCT
TCGGTCCTCTACTCAAGAGCTCCGTCTCCGTCTCGCCCTCCTCGAAGTCTCGTCGCGCGCCCGGACCCAGGTC
GCCCTGAAATCTAGCCCGTCCGAGCGGAGTCCAACGGCCGCGCCGCACCAAGGCCCCCTCAGACCGTGCCATG
GGTGACAGTGATGACGAGTACGATCGAAGGCGCAGGGACAAGTTTCAAGAGAGCGCAGCGACTACGACCGTTCC
CGCGAGAGAGATGAAAGACGTGAGGGGACGATTGGAATGACAGAGAGTGGGACCGTGGCCGTGAGCGCCGTAGT
CGGGGTGAATATCGGGACTATGACCGGAATCGGCGAGAGCGCTTCTCGCCACCTCGCCACGAACTCAGCCCCGCA
CAGAAGCGCATGAGGAGAGACTGGGATGAGCACAGCTCTGACCCATACCACAGTGGCTATGAGATGCCCTATGCT
GGGGGGGGGTGGGGGCCCAACTTATGGCCCCCTCAGCCCTGGGGCCACCCTGACGTCCACATCATGCAGCACCA
TGTCCTGCCTATCCAGGCCAGGCTGGGCAGCATTGCAGAGATTGACCTGGGTGTGCGCGCCCGCGTGATGAAGAC
CTTCAAGGAGTTTTCTCTCTCCCTGGATGACTCGGTGGATGAGACGGAGGCCGTCAAGCGCTATAATGACTACAA
GCTGGATTTCCGGAGGCAACAGATGCAGGATTTCTTCTGGCGCACAAAGATGAGGAGTGGTTTCGGTCTAAGTA
CCACCCAGATGAGGTGGGAAGCGTCGGCAGGAGGCCGGGGGGCCCTGCAAAACCGACTGAGGGTCTTCTGTCTC
CCTCATGGAGACTGGCTGGTTTGATAACCTTCTCTGGACATAGACAAAGCTGATGCCATTGTCAAGATGCTGGA
TGCAGCCGTGATTAAGATGGAAGGAGGCACGGAGAATGATCTCCGCATCCTGGAGCAGGAGGAGGAGGAGGAGCA
GGCAGGAAAGCCTGGGGAGCCAGCAAGAAAGAAGAAGGACGGGCTGGAGCAGGCCTAGGGGACGGGGAGCGCAA
AACCACGACAAGGATGAGAAGAAGGAAGACGGCAAGCAGGCTGAGAATGACAGTTCTAATGATGACAAAACAAA
GAAGTCGGAGGGTGATGGGGACAAGGAAGAGAAGAAAGAAGACTCCGAGAAGGAAGCCAAAAAGAGTAGCAAGAA
GCGGAACCGGAAGCACAGTGGTGACGACAGCTTTGACGAGGGCAGCGTGTGAGTCTGAGTCGGAGTCAGAGAG
CGGCCAGGCTGAGGAGGAGAAGGAGGAGGCCGAAGCGCTCAAGGAGAAGGAGAAGCCCAAGGAAGAAGATGGGA
GAAGCCCAAGGACGCGCGGGGCTGGAGTGAAGCGCGGCGCGCTGCATAAGACCTGCTCCCTCTTCATGCGCAA
CATGCGCCCCAACATCTCCCGGGCCGAGATCATCTCCCTTTGTAAAAGGTACCCAGGCTTTATGCGGGTGGCGCT
CTCAGAGCCCCAGCCAGAGAGGAGGTTTTTCCGTCTGTTGGTGGGTGACCTTCGACCGCAGTGTAAACATTAAAGA
GATCTGTTGGAACCTGCAGAACATCCGTCTCCGGAGTGTGAGCTGAGCCCTGGTGTGAAGTGGGACCTGACCCGG
CGGTTTCGCAACATCAACGGCATCACCCAGCACAAAGCAGATTGTGCGCAACGACATCAAGCTGGCGGCCAAGCTG
ATCCACACGCTGGATGACAGGACACAGCTTTGGGCTCAGAACCGGACGCTCCCTGCCCCAGAGCCTGCCC
TCGCAAAACCCGATCTTGAAGAATATCACCGACTACCTGATCGAGGAAGTAAGCGCCGAGGAGGAGGAGCTGCTG
GGGAGCAGCGGGGCGCTCCTCCTGAGGAGCCTCCTAAGGAAGGGAACCCGGCAGAGATCAACGTGGAGCGGGAT
GAGAAGTTGATTAAGGTCTTGGACAAGCTCCTCCTTTACCTGCGCATCGTGATTCTTGGATTATACAACACC
TGTGAGTACCCCAACGAGGACGAGATGCCCAATCGCTGTGGGATCATCCAGTTCGGGGGCCCATGCCACCCAAC
CGCATCAGTCACGGGAAGTGCTGGAGTGGCAGAAGACTTTTGAGGAGAAGCTCACGCCGTTGCTGAGTGTGCGG
GAGTCACTCTCAGAGGAAGAGGCCCAGAAGATGGGGCGCAAGACCCAGAGCAGGAAGTGGAGAAGTTTCGTACC
TCCAACACGCAGGAAGTGGCAAGGATAAGTGGCTGTGCTCTCAGTGGCAAGAAATTCAAGGGTCTGAGTTT
GCGCGCAACATATCTTCAACAAGCATGCAGAGAAAATTGAGGAAGTGAGAAAGGAAGTCGCGTTTTTTAACAAC
TTCTCACTGATGCTAAGCGCCAGCTCTGCCTGAGATCAAGCCAGCCAGCCACCTGGCCCCGCCCAGATACTC
CCCCCAGGTTTACCCAGGACTCCCCACACCAGACTCCCCAGGGCCTGATGCCCTATGGTCAGCCCCGG
CCCCGATCTTGGGCTATGGAGCTGGTGTCTGTCGCCCTGCAGTCCCCACAGGAGGCCCTCCATACCCCATGCC
CCGTATGGTGTGGTCGAGGGAAGTATGATGCCTTCGAGGCCAGGAGGCTATCTGGGAAACCTGCAACAGG
ATGGTTTCGTGGAGACCCAAGGGCCATTGTGGAATATCGGGACCTGGATGCCCCAGACGATGTTGATTCTTTTGA
GCCGTCCCCCGTTCTCAGTCTGTATCATCCATACTTGTACTACCTTGTCTATGAAGCTCTGAGAATTTTTTG
TACGATCAGCCTTACTGCTAATAAAAGCACTTCCACAGGGAAGAAAAAAGAAAAA

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FIGURE 253

CCGCAGAACTTGGGGAGCCGCCGCCCATCCGCCGCCGAGCCAGCTTCCGCCGCCGAGGACCGGCCCTGCC
CCAGCCTCCGAGCCGCGCGCGTCCACGCCCCGCCGCCAGGGCGAGTCGGGGTCGCCGCTGCACGCTTCT
CAGTGTTCGCCGCGCCCCGCATGTAACCCGGCCAGGCCCCCGCAACGGTGTCCCTGCAGCTCCAGCCCCGGGCT
GCACCCCCCGCCCCGACACCAGCTCTCCAGCCTGCTCGTCCAGGATGCCGCCGCCAAGGCCGAGATGCAGCTG
ATGTCCCCGCTGCAGATCTCTGACCCGTTCCGATCCTTTCTCTACTCGCCACCATGGACAACCTACCCTAAGCTG
GAGGAGATGATGCTGCTGAGCAACGGGGCTCCCCAGTTCTCGGCCGCCGCCGGGGCCCCAGAGGGCAGCGGCAGC
AACAGCAGCAGCAGCAGCAGCGGGGGCGGTGGAGCGCGGGGGCGGCAGCAACAGCAGCAGCAGCAGCAGCACC
TTCAACCCTCAGGCGGACACGGGCGAGCAGCCCTACGAGCACCTGACCGCAGAGTCTTTTCTGACATCTCTCTG
AACAACGAGAAGGTGCTGGTGGAGACCAGTTACCCAGCCAAACCACTCGACTGCCCCCATCACCTATACTGGC
CGCTTTTCCCTGGAGCCTGCACCCAACAGTGGCAACACCTTGTGGCCGAGCCCCCTTTCAGCTTGGTCAGTGGC
CTAGTGAGCATGACCAACCCACCGGCTCCTCGTCTCAGCACCATCTCCAGCGGCTCCTCCGCTCCGCTCC
CAGAGCCACCCCTGAGCTGCGCAGTGCCATCCAACGACAGCAGTCCCATTTACTCAGCGGCACCCACCTTCCCC
ACGCCGAACACTGACATTTTCCCTGAGCCACAAAGCCAGGCTTCCCGGGCTCGGCAGGGACAGCGCTCCAGTAC
CCGCTTCTGCTACCTTCCCGCAAGGGTGGCTTCCAGGTTCCCATGATCCCCGACTACCTGTTTCCACAGCAG
CAGGGGGATCTGGGCTGGGCACCCAGACCAGAAGCCCTTCCAGGGCTGGAGAGCCGACCCAGCAGCCTTCG
CTAACCCCTCTGCTACTATTAAGGCTTTGCCACTCAGTCGGGCTCCAGGACCTGAAGGCCCTCAATACCAGC
TACCAGTCCAGCTCATCAAACCCAGCCGATGCGCAAGTATCCCAACCGGCCAGCAAGACGCCCCCCCCACGAA
CGCCCTTACGCTTGCCAGTGGAGTCTGTGATCGCGCTTCTCCGCTCCGACGAGCTCACCCGCCACATCCGC
ATCCACACAGGCCAGAAGCCCTTCCAGTGCCGATCTGCATGCGCAACTTCAGCCGCAGCGACCACCTCACCACC
CACATCCGACCCACACAGGCGAAAAGCCCTTCGCTGCGACATCTGTGGAAGAAAGTTTGCCAGGAGCGATGAA
CGCAAGAGGCATACCAAGATCCACTTGCGGCAGAAGGACAAGAAAGCAGACAAAAGTGTGTGGCCTCTTCGGCC
ACCTCCTCTCTCTCTTCTACCCGTCCCCGGTGTCTACCTCTTACCCGTCCCCGGTACTACCTCTTATCCATCC
CCGGCCACCACCTCATACCCATCCCTGTGCCACCTCCTTCTCTCTCCCGGCTCCTCGACCTACCCATCCCT
GTGCACAGTGGCTTCCCTCCCCGTGGTGGCCACCACGTACTCCTCTGTTCCCCCTGCTTTCCCGGCCAGGTC
AGCAGCTTCCCTTCCCTCAGCTGTACCAACTCCTTCAGCGCTCCACAGGGCTTTCGGACATGACAGCAACCTTT
TCTCCAGGACAATTGAAATTTGCTAAAGGGAAAGGGGAAAGAAAGGGAGAAAAGAAACACAAGAGA
CTTAAAGGACAGGAGGAGGAGATGGCCATAGGAGAGGAGGTTCTCTTAGGTGAGATGGAGGTTCTCAGAGCCA
AGTCTCCTCTCTACTGGAGTGAAGGTCTATTGGCCAACAATCCTTTCTGCCACTTCCCTTCCCCAATTAC
TATTCCTTTGACTTCAGCTGCCTGAAACAGCCATGTCCAAGTTCTTACCTCTATCCAAAGAACTTGATTGCA
TGGATTTTGATAAATCATTTTCAGTATCATCTCCATCATATGCCTGACCCCTTGCTCCCTCAATGCTAGAAAAT
CGAGTTGGCAAAATGGGGTTTGGGCCCTCAGAGCCCTGCCCTGCACCCTGTACAGTGTCTGTGCCATGGATTT
CGTTTTCTTGGGTACTCTTGATGTGAAGATAATTTGCATATTCTATTGTATTATTTGGAGTTAGGTCTCTACT
TGGGGGAAAAAAAAAAAAAAAAAGCCAAGCAAACCAATGGTGTATCCTCTATTTGTGATGATGCTGTGACAATAAG
TTTGAACCTTTTTTTTTGAAACAGCAGTCCCAGTATTCTCAGAGCATGTGTGAGAGTGTGTCCGTTAACCTTT
TTGTAATACTGCTTGACCGTACTCTCACATGTGGCAAAATATGTTTGGTTTTCTTTTTTTTTTTGAAAGTG
TTTTTCTTCGTCCTTTTGGTTTAAAAAGTTTCAGCTTGGTGCCTTTTGTGTGATGCCCTTGTCTGATGGCTT
GACATGTGCAATTGTGAGGGACATGCTCACCTCTAGCCTTAAGGGGGGCAGGGAGTGATGATTGGGGGAGGCTT
TGGGAGCAAAATAAGGAAGAGGGCTGAGCTGAGCTTCGGTTCTCCAGAATGAAGAAAACAAAATCTAAAACAAA
ATCTGAACCTCTCAAAAGTCTATTTTTTAACTGAAAATGTAAATTTATAAATATATTACAGGAGTTGGAATGTTGT
AGTTACCTACTGAGTAGGCGGCGATTTTTGTATGTTATGAACATGCAGTTCATTATTTTGTGGTTCTATTTTACT
TTGTACTTGTGTTTGTCTAAACAAAGTACTGTTTGGCTTATAAAACACATTGAATGCGCTTATTGCCCATGGGA
TATGTGGTGATATCCTTCCAAAAAATTAAAACGAAAATAAGTAGCTGCGATTGGG

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FIGURE 254

MAAAKAEMQLMSPLQISDPFGSFPHSPTMDNYPKLEEMLLSNGAPQFLGAAGAPEGSGSNSSSSSSSGGGGGGGG
GSNSSSSSSTFNPQADTGEQPYEHLTAESFPDISLNNEKVLVETSYPSQTTRLPPITYTGRFSLEPAPNSGNTLW
PEPLFSLVSLVSMTNPPASSSSAPSPAASSASASQSPPLSCAVPSNDSSPIYSAAPTFFTPNTDIFPEPQSQAF
PGSAGTALQYPPPAYPAAKGGFQVPMIPDYLFPQQQGDGLGTPDQKPFQGLSRTQQPSLTPLSTIKAFATQSG
SQDLKALNTSYQSOLIKPSRMRYPNRPSKTPPHERPYACPVESCDRRFSRDELTRHIRIHTGQKPFQCRICMR
NFSRSDHLTTHIRTHTGEKPFACDICGRKFARSDEKRHTKIHRLRQDKKADKSVVASSATSSLSSYPSPVATSY
PSPVTTSYPSPATTSYSPVPTSFSSPGSSSTYSPVHSGFPSPSVATTYSSVPPAFPAQVSSFPSSAVTNSFSAS
TGLSDMTATFSPRTIEIC

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FIGURE 255

CTTCCCCTTCTCTGCCCTGCTCCAGGCACCAGGCTCTTTCCCCTTCAGTGTCTCAGAGGAGGGGACGGCAGCACC
ATGGACCCCCGCTTGTCCACTGTCCGCCAGACCTGCTGCTGCTTCAATGTCCGCATCGCAACCACCGCCCTGGCC
ATCTACCATGTGATCATGAGCGICTTGTGTTCATCGAGCACTCAGTAGAGGTGGCCCATGGCAAGGCGTCCTGC
AAGCTCTCCCAGATGGGCTACCTCAGGATCGCTGACCTGATCTCCAGCTTCCTGCTCATCACCATGCTCTTCATC
ATCAGCCTGAGCCTACTGATCGGCGTAGTCAAGAACCGGGAGAAGTACCTGCTGCCCTTCCTGTCCCTGCAAATC
ATGGACTATCTCCTGTGCCTGCTCACCCTGCTGGGCTCCTACATTGAGCTGCCCCGCTACCTCAAGTTGGCCTCC
CGGAGCCGTGCTAGCTCCTCCAAGTTCCCCCTGATGACGCTGCAGCTGCTGGACTTCTGCCTGAGCATCCTGACC
CTCTGCAGCTCCTACATGGAAGTGCCACCTATCTCAACTTCAAGTCCATGAACCACATGAATTACCTCCCCAGC
CAGGAGGATATGCCTCATAACCAGTTCATCAAGATGATGATCATCTTTTCCATCGCCTTCATCACTGTCTTATC
TTCAAGGTCTACATGTTCAAGTGCGTGTGGCGGTGCTACAGATTGATCAAGTGCATGAACCTGGTGGAGGAGAAG
AGAAACTCCAAGATGCTCCAGAAGGTGGTCTGCGCTCTACGAGGAAGCCCTGTCTTTGCCATCGAAGACCCCA
GAGGGGGGCCAGCACCACCCCATACTCAGAGGTGTGACCCCTCGCCAGGCCCCAGCCCCAGTGTGGGAGGGGT
GGAGCTGCCCTCATAATCTGCTTTTTTGCTTTGGTGGCCCTGTGGCTGGGTGGGCCCCCTCCGCCCCCTCCCTGGC
AGGACAATCTGCTTGTGTCTCCTCGCTGGCCTGCTCCTCGCAGGGCCTGTGAGCTGCTCACAACCTGGGTCAA
CGCTTTAGGCTGAGTCACTCCTCGGGTCTCTCCATAATTACGCCCAACAATGCTTGGTTTATTTCAATCAGCTCT
GACACTTGTTTTAGACGATTGGCCATTCTAAAGTTGGTGAGTTTGTCAAGCAACTATCGACTTGATCAGTTCAGCC
AAGCAACTGACAAATCAAAAACCCACTTGTGAGTTCAGTAAAATAATTTGGTCAAACAACAGTCTATTGCATTGA
TTTATAAATAGTTGTGAGTTCACATAGCAATTTAATCAAGTAATCATTAAATTAGTTACCCCCATATATAAATAT
ATGTAATCAATTTCTTCAAATAGCTTGCTTACATGATAATCAATTAGCCAACCATGAGTCATTTAGAATAGTGAT
AAATAGAATACACAGAATAGTGATGAAATTCAATTTAAAAAATCACGTTAGCCTCCAAACCATTTAATTCAAATG
AACCCATCAACTGGATGCCAACTCTGGCGAATGTAGGACCTCTGAGTGGCTGTATAATTGTTAATTCAAATGAAA
TTCATTTAAACAGTTGACAACTGTCATTCAACAATTAGCTCCAGGAAATAACAGTTATTTATCATATAAAACAGT
CCCTTCAAACACACAATTGTTCTGCTGAAGAGTTGTCATCAACAATCCAATGCTCACCTATTAGTTGCTCTGTG
GTCAGTGTGGCTGCATAGCAGTGGATTCCATGAAAGGAGTCATTTTAGTGATGAGCTGCCAGTCCATTCCCAGGC
CAGGCTGTGCTGGCCATCCATTAGTTCGATTAGTCATAGGCGAATCTGTTCTGCCCGAGGCTTGTGGTCAAGC
AAAAATTAGCCCTGAAATCAGGCACATCTGTTCTGTTGACTAAACCCACAGGTTAGTTCAGTCAAAGCAGGCAA
CCCCCTTGTGGGCACTGACCCTGCCACTGGGGTCATGGCGGTTGTGGCAGCTGGGGAGGTTTGGCCCCAACAGCC
CTCCTGTGCCTGCTTCCCTGTGTGTCGGGGTCTCCAGGGAGCTGACCCAGAGGTGGAGGCCACGGAGGCAGGGT
CTCTGGGGACTGTGCGGGGGTACAGAGGGAGAAGGCTCTGCAAGAGCTCCCTGGCAATACCCCTTGTGTAATTG
CTTGTGTGCGACAGGGAGGAAGTTTCAATAAAGCAACAACAAGCTTCAAGGAATT

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FIGURE 256

MDPRLSTVRQTCCCFNVRIATTALAIYHVIMSVLLFIEHSVEVAHGKASCKLSQMGYLRIADLISSFLLITMLFI
ISLSLLIGVVKNREKYLLPFLSLQIMDYLLCLLTLLGSYIELPAYLKLASRSRASSSKFPLMTLQLLDFCLSILT
LCSSYMEVPTYLNFKSMNHMNYLPSQEDMPHNQFIKMMIIFSIAFITVLIFKVYMFKCVWRCYRLIKCMNSVEEK
RNSKMLQKVVLPSYEEALSLPSKTPEGGPAPPYSEV

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FIGURE 257

CACGAGGGAGCGCTAACGTCTTTCTGTCTCCCCGCGGTGGTGATGACGGTGAAAACCTGAGGCTGCTAAGGGCACC
CTCACTTACTCCAGGATGAGGGGCATGGTGGCAATTCTCATCGCTTTCATGAAGCAGAGGAGGATGGGTCTGAAC
GACTTTATTGAGAAGATTGCCAATAACTCCTATGCATGCAAACACCTGAAGTTCAGTCCATCTTGAAGATCTCC
CAACCTCAGGAGCCTGAGCTTATGAATGCCAACCTTCTCCTCCACCAAGTCTTCTCAGCAAATCAACCTTGGC
CCGTCGTCCAATCCTCATGCTAAACCATCTGACTTTCACCTTCTTGAAAGTGATCGGAAAGGGCAGTTTGGAAAG
GTTCTTCTAGCAAGACACAAGGCAGAAGAAGTGTCTATGCAGTCAAAGTTTTACAGAAGAAAGCAATCCTGAAA
AAGAAAGAGGAGAAGCATATTATGTGCGAGCGGAATGTTCTGTTGAAGAATGTGAAGCACCCTTCTGGTGGGC
CTTCACTTCTCTTTCCAGACTGCTGACAAATTGTACTTTGTCTAGACTACATTAATGGTGGAGAGTTGTTCTAC
CATCTCCAGAGGGAACGCTGCTTCTGGAACACGGGCTCGTTTCTATGCTGCTGAAATAGCCAGTGCCTTGGGC
TACCTGCATTCACTGAACATCGTTTATAGAGACTTAAAACCAGAGAATATTTTGTAGATTACAGGGACACATT
GTCCTTACTGATTTTCGGACTCTGCAAGGAGAACATTGAACACAACAGCACAACTCCACCTTCTGTGGCACGCCG
GAGTATCTCGCACCTGAGGTGCTTTCATAAGCAGCCTTATGACAGGACTGTGGACTGGTGGTGCCTGGGAGCTGTC
TTGTATGAGATGCTGTATGGCCTGCGCCTTTTTATAGCCGAAACACAGCTGAAATGTACGACAACATTCTGAAC
AAGCCTCTCCAGCTGAAACCAAATATTACAAATTCGCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAGG
ACAAAGCGGCTCGGGGCCAAGGATGACTTTCATGGAGATTAAGAGTCATGTCTTCTTCTCTTAATTAACGGGAT
GATCTCATTAAATAAGAAGATTACTCCCCCTTTTAAACCAAATGTGAGTGGGCCCCAACGAGCTACGGCACTTTGAC
CCCGAGTTTACCGAAGAGCCTGTCCCCAATCCATTGGCAAGTCCCCCTGACAGCGTCCCTCGTCACAGCCAGCGTC
AAGGAAGCTGCCGAGGCTTTCTAGGCTTTTCTATGCGCCTCCACGGACTCTTCTCTGAACCTGTTAGGG
CTTGGTTTTAAAGGATTTTATGTGTGTTTCCGAATGTTTAGTTAGCCTTTTGGTGGAGCCGCCAGCTGACAGGA
CATCTTACAAGAGAATTTGCACATCTCTGGAAGCTTAGCAATCTTATGACACTGTTGCTGGAATTTTTTGAA
GAGCACATTCTCCTCAGTGAGCTCATGAGGTTTTCATTTTTATTCTTCTTCCAACGTGGTGCTATCTCTGAAAC
GAGCGTTAGAGTGCCGCTTAGACGGAGGCAGGAGTTTCGTTAGAAAGCGGACCTGTTCTAAAAAAGGTCTCCTG
CAGATCTGCTGGGCTGTGATGACGAATATTATGAAATGTGCCTTTTCTGAAGAGATTGTGTTAGCTCCAAAGCT
TTTCTATCGCAGTGTTTCAGTTCTTTATTTTCCCTTGTGGATATGCTGTGTGAACCGTCGTGTGAGTGTGGTAT
GCCTGATCACAGATGGATTTTGTATAAGCATCAATGTGACACTTGCAGGACACTACAACGTGGGACATTGTTTG
TTTCTTCCATATTTGGAAGATAAATTTATGTGTAGACTTTTTGTAAAGATACGGTTAATAACTAAAATTTATGA
AATGGTCTTGCAATGACTCGTATTGAGATGCCTAAAGAAAGCATTGCTGCTACAAATATTTCTATTTTTAGAAAG
GGTTTTTATGGACCAATGCCCCAGTTGTCAGTCAGAGCCGTTGGTGTTTTCATTGTTTAAATGTCACCTGTAA
AATGGGCATTATTTATGTTTTTTTTTTTGCATTCTGATAATTGTATGTATTGTATAAAGACGTCTGTACATTG
GGTTATAACACTAGTATATTTAAACTTACAGGCTTATTTGTAATGTAAACCACCATTTTAAATGTACTGTAATTAA
CATGGTTATAATACGTACAATCCTTCCCTCATCCATCACACAACCTTTTTTGTGTGTGATAAACTGATTTTGGT
TTGCAATAAACCTTGAAAAATAAAAAAAAAAAAAAAAAAAAA

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FIGURE 258

MTVKTEAAKGTLTYSRMGMVAILIAFMKQRRMGLNDFIQKIANN SYACKHPEVQSILKISQPQEP ELMNANPSP
PPSPSQINLGPSSNP HAKPSDFHFLKVIGKGSFGKVLLARHKAEEVFYAVKVLQKKAILKKKEEKHIMSER NVL
LKNVKHPFLVGLHFSFQTADKLYFVLDYINGGELFYHLQRERCFLEPRARFYAAEIASALGYLHSLNIVYRDLKP
ENILLDSQGHIVLTDFGLCKENIEHNSTTSTFCGTP EYLAPEVLHKQPYDRTVDWWCLGAVLYEMLYGLPPFY SR
NTAEMYDNILNKPLQLKPNITNSARHLLEGLLQKDRTKRLGAKDDFMEIKSHVFFSLINWDDLINKKITPPFNPN
VSGPNELRHFDPEFTEEPVPNSIGKSPDSVLVTASVKEAAEAF LGFSYAPPTDSFL

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FIGURE 259

GGCCTGTTCTCGAGTCCGCGCTTTTCGTCACCGCCATGTCGGGAGGTGGTGTGATTCTGTGGCCCCGAGGGAACA
ACGATTGCCGCATCTACGTGGGTAACTTACCTCCAGACATCCGAACCAAGGACATTGAGGACGTGTTCTACAAAT
ACGGCGCTATCCGCGACATCGACCTCAAGAATCGCCGCGGGGACCGCCCTTCGCCCTTCGTTGAGTTCGAGGACC
CGCGAGACGCGGAAGACGCGGTGTATGGTCGCGACGGCTATGATTACGATGGGTACCGTCTGCGGGTGGAGTTTC
CTCGAAGCGGCCGTGGAACAGGCCGAGGCGGCGGGGGTGGAGGTGGCGGAGCTCCCCGAGGTGCTATGGCC
CCCCATCCAGGCGGTCTGAAAACAGAGTGGTTGTCTCTGGACTGCCTCCAAGTGGAAAGTTGGCAGGATTTAAAGG
ATCACATGCGTGAAGCAGGTGATGTATGTTATGCTGATGTTTACCAGATGGCACTGGTGTGCTGGAGTTTGTAC
GGAAAGAAGATATGACCTATGCAGTTCGAAAACCTGGATAACACTAAGTTTAGATCTCATGAGGGAGAACTGCCT
ACATCCGGGTAAAGTTGATGGGCCAGAAAGTCCAAGTTATGGAAGATCTCGATCTCGAAGCCGTAGTCGTAGCA
GAAGCCGTAGCAGAAGCAACAGCAGGAGTCGCAGTTACTCCCCAAGGAGAAGCAGAGGATCACCACGCTATTCTC
CCCGTCATAGCAGATCTCGCTCTCGTACATAAGATGATTGGTGACACTTTTTGTAGAACCCTATGTTGTATACAGT
TTTCCTTTTATTAGTACAATCTTTTCATTTTTTAATTCAAACCTGTTTGTTCAGAAATGGGCTAAAGTGTGAATT
GCATTCTTGTAATATCCCCTTGCTCCTAACATCTACATTCCCTTCGTGCTTTTGATAAATTGTATTTTAAAGTGAT
GTCATAGACAGGATTGTTTAAATTTAGTTAACTCCATACTCTTCAGACTGTGATATTGTGTAAATGTCTATCTGC
CCTGGTTTGTGTGAAGTGGGATGTTGGGGGTGTTTGTGGTTATCTTACCTGGGGAAGTTCTTATGTTTATCTTGC
TTTTCATGTGCTTTCTGTAGACATATCTGAAGAGATGGATTAAGAATGCTTTGGATTAAGGATTGTGGAGCACA
TTTCAATCATTTTAGGATTGTCAAAGGAGGATTGAGGAGGATCAGATCAATAATGGAGGCAATGGTATGACTCC
AAGTGCTATTGTACAGATGAAATTGGCAGTATTGACCTTATACTAAAAGGCAGGGGTAAAAATGATTATATAC
ATTTTCCTTAAACACTTGCAAACATTTTATTAGTTGTCTTTAGCTACAATTGCTTTTGTCTTTTAAACCTTGGC
AATTGTGGCAAATATATTGCCCATTGTGTAGCACTTATTTTGTCTCCCTTCCCCCATTTTGTTTTAAATAGG
GACTAATGTGGGAAGAACTGGCTAATTGTACAGTGTCTAGTTACAACCTGTTAATGTGTGACCTGCTGTTGGTG
TACATGTGGGTACAGGGTGTTTTTAAATCCAACAAGATAGAGTATAATATCAATACTGCTAAATCTGCATGTCCT
CTGTGTGACTGATAGAGCGTTGCTATTTTCATTTTTTAAAGACAAAATGAAAGCAAAATATAGAGTTCCAATGTAT
TGGTGTAGATAATCTAGTTGGGAATACTTTTAAAGTCTCACCTTCCCCTTAAACTAATATTCATAATTGGTTCAT
ATGTTTAAAGACTTTAATTTACAAATTAAATTGCAATGGGAGCATTAGATTTAGTTTTAGACTTAGGTGGGTA
GCAATGCCAGTAACTTAAATTACGTAACTTCTTGCAACCACGAAACCTGTAATACGCTGTACAGTAACAAGTGT
TGGCATTATCAGTTGAAGTGTAAATACAAAATGCTTCTTCCAATTAGTCTCTATGATGATTAAGTTTCTAAAAT
TATCTGAACACCATTAGAAAATGTTTTGGGGAATTTGATAGTTATTGATGTGCATCTGTAAACTGATGACAG
ACATAACTCATCATTTCCCAGAAACCTTTTTTGATTACAGTATCTAACATTTTGCCTCCTCTTTTTTGGTTTTGC
TGGTTATAAAGGTTTTGATTGGAGAGGGCTCACTGGATCCCAATCCTTGGAGCTGGATCATTGGATTCAAATCAT
AATGTGGATAGGATAGGAGGATGAATTACCAGGATTCATGGAGCGGGATCAGATTACCAGGAACATAGGAGTGG
ATTCTGCCCCAACCAACCGCATTTCGTGTGGATTTTTTATTCAACTTAATTGGCTATTCCAAAGATTTTTTTT
TTCCTATTTTTGACGATTGGAGCCCTTAAGATGCACGATGGAATTGTGTTTTGCGTTTTTGGTAAAAGGAGCAA
AGCGAGGACCTGGAGATAAACGCTGGAGCAATCTCCTTGAAGGATTACGACGAGTAGATGGTAAACATTTTAA
GGGGAAGGGGGGTTTTGTTTAAATAGTAAATCAGTAAGTCACTTCTAAATTTAAAGAAAACAAAATTGGAGTT
GAAGAATAAGTAGGTTTCCAATTGGCTATTGCCGTTTTCTTTGAAAAATAAACATTTTTTAAAAACAAAAAA
AAAAAA

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FIGURE 260

MSGGGVIRGPAGNNDCRIYVGNLPPDIRTKDIEDVFYKYGAIRDIDLKNRRGGPPFAFVEFEDPRDAEDAVYGRD
GYDYDGYRLRVEFPRSGRGTGRGGGGGGGGGAPRGYGPSSRRSENRVVVSGLPPSGSWQDLKDHMREAGDVCYA
DVYRDGTGVVEFVRKEDMTYAVRKLDNTKFRSHEGETAYIRVKVDGPRSPSYGRSRSRSRSRSRSRSRSRSRSRS
YSPRRSRGSPRYSRHSRSRSRT

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FIGURE 261

AGATAACAAGAGTAATCCACAGACTTAAAACATGAGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC
TCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC
TGCCTTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAACTGGATTACTAGC
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGGCAT
GGTCACACCTATCAATGACCTTCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAA
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTGGATGGGCACACCTGGCAAATACCTATAICTCAGTAAGAAT
AAGTAAGGAGCAAGACCACATTATAATAATTCACAGAGGCTATCTTTTCTGAAGCTACAGCCTCCAATTTGGT
GAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTCAGTCC
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTACATACATCCATACCCTTGCAACAGCAGCTGT
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA
CCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGTTCTGGGACCAAGTTGTAAGGTGCTGGT
ACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTAAATGTGCAACT
AGCCTGTGAGATTCAAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTCAGAA
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTAATATGGGTTCCCAACAAAAATGGAA
GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAG
GCATCCTCTCATTGAGAGAAGCCTAGGCACAAGAGTGATGTGGAATCCAGCAACTGTGACTGCTTTTCTCTT
TGAAGACGATACAGTGCCACTCTCTCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAACAAGATGGCT
GAACTACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACAGTCCCCGAACCAA
AATCAGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGAACACCTATCAAAATGAAGATCCAAATCA
GTTTGTTCCTTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA
CTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT
TGAAGATGATGATCATGGCCACCAGCTCCTCTTAACCCATTTAGTCATCTCACAGAAGGAGAAGTTGAAGAGTA
TAAGAGGACAATCGAACGTAAACAACAAGGCTTAGAAGATGCTGAGCAGGAATTACTCTCAGATGACGCTTCATC
TGTTTCACAAATTCAGTCTCAAACCTCAGTCACCGCAAAATGTCCCTGAAAAATTAGAAGAAAACCATGAGCTGTT
TTCCAAGAGCTTTCATCTCCATGGAAGTGCCTGTCTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGA
TGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCC
AGAGAAAATCGAAGAAGTCTGTACCTGAAGGCTCCCTTCAAATCGCCATCCAAGAAAAAGAAATTCGG
CACTCCTTCTTTTCTGAAAAAGAACAAAAAAAGGAGAAAGTTGAGGCCATAATAAAGTCTTTTATAATTATTA
TTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAAATATGCAATGGTAGATCAGATTG
GGGGATGTAGCAAACTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAACTTTCAGATTCATCTCTCAT
TTTATATGTCCAGAAATGGCTTTGAATTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTAT
TATAATTCACCATAAACAGCTATCTGTCTGAATTACTTCAGGCCCTTCTCCATAATATCTGTTAGAAAGAAATTGC
CAGTGAGCAAGTGAGAATTTTATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTTATCATGAT
TATTGACTATATTTTTGGAGTCCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAACTTCTAAGACAAGAA
TCTATAGCATTAGTATACACTGGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCAATTGGAATTTTATTCA
CAGTATAAAATTTCTCACCTGAAGTAACTTTGTGTTGCCAAAAAGTTGTTTTAATAAACTATAATTTTTGAAAA
CTTCCTTTTTTATTAGTTTAGAAAGCCCTTATTTTTCAACAAAGGGGATTTGTACACATAACATGGGTTATTT
AGTTTAACTCTGGC

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FIGURE 262

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTOILQSPAFREDLECLI
QEOMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQLQKVLGSPCKVLVLRNHGVVALG
ETLEEFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFOKYKAFTYTVASGGGGVNMGSHQKWKVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNSPNTYMKVN
VPEESRNETSPRTKITWMKAEDSSKVSGGTPIKIEDPNQFVPLNTPNEVLEKRNKIREQNRYDLKTAGPQSOL
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLTEGELEEYKRTIERKQQGLEDAEQELLSDDASSVSQIQSQTQS
PQNVPEKLEENHELFSKSFISMEVPVMVNGKDDMHDVEDELAKRVSRLSTTTIENIEITIKSPEKIEEVLSP
GSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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FIGURE 263

ATATAACCGCGTGGCCCGCGCGCGCTTCCCTCCCGCGCAGTCACCGCGCGGTCTATGGCTGCGACTTCTCT
AATGTCTGCTTTGGCTGCCC GGCTGCTGCAGCCCGCGCACAGCTGCTCCCTTCGCCTTCGCCCTTTCCACCTCGC
GGCAGTTCGAAATGAAGCTGTTGTCAATTTCTGGAAGGAACTGGCCAGCAGATCAAGCAGGAAGTGCGGCAGGA
GGTAGAAGAGTGGGTGGCCTCAGGCAACAAACGGCCACACCTGAGTGTGATCCTGGTTGGCGAGAATCCTGCAAG
TCACTCCTATGTCTCAACAAAACCAGGGCAGCTGCAGTTGTGGGAATCAACAGTGAGACAATTATGAAACCAGC
TTCAATTTAGAGGAAGAATTGTTGAATTTAATCAATAAACTGAATAATGATGATAATGTAGATGGCCTCCTTGT
TCAGTTGCCTCTTCCAGAGCATATTGATGAGAGAAGGATCTGCAATGCTGTTTCTCCAGACAAGGATGTTGATGG
CTTTCATGTAATTAATGTAGGACGAATGTGTTTGGATCAGTATTCCATGTTACCGGCTACTCCATGGGGTGTGTG
GGAAATAATCAAGCGAACTGGCATTCCAACCCTAGGGAAGAATGTGGTTGTGGCTGGAAGGTCAAAAAACGTTGG
AATGCCCATTTGCAATGTTACTGCACACAGATGGGGCGCATGAACGTCGCCGAGGTGATGCCACTGTTACAATATC
TCATCGATATACCTCCAAAGAGCAGTTGAAGAAACATAACAATTTCTTGCAGATATTGTAATATCTGCTGCAGGTAT
TCCAAATCTGATCAGCAGATATGATCAAGGAAGGAGCAGCAGTCATTGATGTGGGAATAAATAGAGTTCACGA
TCCTGTAAC TGCCAAACCAAGTTGGTTGGAGATGTGGATTTTGAAGGAGTCAGACAAAAAGCTGGGTATATCAC
TCCAGTTCTTGAGGTGTGGCCCCATGACAGTGGCAATGCTAATGAAGAATAACCATTATTGCTGCAAAAAAGGT
GCTGAGGCTTGAAGAGCGAGAAGTGCTGAAGTCTAAAGAGCTTGGGGTAGCCACTAATTAACACTACTGTGCTTCT
GTGTCACAAACAGCACTCCAGGCCAGCTCAAGAAGCAAAGCAGGCCAATAGAAATGCAATATTTTTAATTTATTC
TACTGAAATGGTTTAAATGATGCCTTGATTTTATTGAAAGCTTAAATGGGTGGGTGTTTCTGCACATACCTCTG
CAGTACCTCACCAGGGAGCATTCCAGTATCATGCAGGGTCTGTGATCTAGCCAGGAGCAGCCATTAACTAGTG
ATTAATATGGGAGACATTACCATATGGAGGATGGATGCTTCACTTTGTCAAGCACCTCAGTTACACATTTCGCCTT
TTCTAGGATTGCATTTCCCAAGTGCTATTGCAATAACAGTTGATACTCATTTTAGGTACCAGACCTTTTGAGTTC
AACTGATCAAACCAAAGGAAAAGTGTGTGCTAGAGAAAATTGGGGAAAAGGTGAAAAAGAAAAATGGTAGTAATT
GAGCAGAAAAAATTAATTTATATATGATTGATTGGCAACCAGATTTATCTAAGTAGAACTGAATTGGCTAGGA
AAAAAGAAAACTGCATGTTAATCATTTCCTAAGCTGTCTTTTGAGGCTTAGTCAGTTTATTGGGAAAATGTT
TAGGATTATTCCTTGCTATTAGTACTCATTTTATGTATGTTACCCTTCAGTAAGTTCTCCCCATTTTAGTTTTCT
AGGACTGAAAGGATTCTTTTCTACATTATACATGTGTGTTGTCATATTTGGCTTTTGCTATATACTTTAACTTCA
TTGTTAAATTTTTGTATTGTATAGTTTCTTTGGTGTATCTTAAACCTATTTTGA AAAACAACTTGGCTTGAT
AATCATTGGGCAGCTTGGGTAAGTACGCAACTTACTTTCCACCAAAGAACTGTCAGCAGCTGCCTGCTTTTCT
GTGATGTATGTATCCTGTTGACTTTTCCAGAAATTTTTTAAGAGTTTGAGTTACTATTGAATTTAATCAGACTTT
CTGATTAAAGGGTTTTCTTTCTTTTTTAATAAAACACATCTGTCTGGTATGGTA

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FIGURE 264

MSALAAARLLQPAHSCSLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVROQVEEWVASGNKRPHLSVILVGENPAS
HSYVLNKTRAAAVVGINSETIMKPASISEEELNLINKLNDDNVDGLLVQLPLPEHIDERRICNAVSPDKDVDG
FHVINVGRMCLDQYSMLPATPWGVWEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAHERPGGDATVTIS
HRYTPKEQLKKHTILADIVISAAGIPNLITADMIKEGAAVIDVGINRVHDPVTAKPKLVGDVDFEGVRQKAGYIT
PVPGGVGPMTVAMLMKNTIIAAKKVLRLEEREVLKSKELGVATN

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FIGURE 265

GGGGGAGTGAAAGCGAAAGCCCGGGCGACTAGCCGGGAGACCAGAGATCTAGCGACTGAAGCAGCATGGCCAAGC
CGTGTGGGGTGC GCCTGAGCGGGGAAGCCCGCAAACAGGTGGAGGTCTTCAGGCAGAATCTTTTCCAGGAGGCTG
AGGAATTCCCTCTACAGATTCTTGCCACAGAAAATCATATACCTGAATCAGCTCTTGCAAGAGGACTCCCTCAATG
TGGCTGACTTGACTTCCCTCCGGGCCCCACTGGACATCCCCATCCCAGACCCTCCACCCAAGGATGATGAGATGG
AAACAGATAAGCAGGAGAAGAAAGAAGTCCCTAAGTGTGGATTCTCCCTGGGAATGAGAAAAGTCCGTCCCTGC
TTGCCCTGGTTAAGCCAGAAGTCTGGACTCTCAAAGAGAAATGCATTCTGGTGATTACATGGATCCAACACCTGA
TCCCCAAGATTGAAGATGGAAATGATTTTGGGGTAGCAATCCAGGAGAAGGTGCTGGAGAGGGTGAATGCCGTCA
AGACCAAAGTGGAAGCTTTCCAGACAACCAATTTCCAAGTACTTCTCAGAACGTGGGGATGCTGTGGCCAAGGCCT
CCAAGGAGACTCATGTAATGGATTACCGGGCCTTGGTGATGAGCGAGATGAGGCAGCCTATGGGGAGCTCAGGG
CCATGGTGCTGGACCTGAGGGCCTTCTATGCTGAGCTTTATCATATCATCAGCAGCAACCTGGAGAAAATTGTCA
CCCCAAAGGGTGAAGAAAAGCCATCTATGTACTTGAACCCGGGACTAGAAGGAAAATAAATGATCTATATGTTGTG
TGG

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FIGURE 266

MAKPCGVRLSGEARKQVEVFRQNLFQEAEFLYRFLPQKIIYLNQLLQEDSLNVADLTSLRAPLDIPIPDPPPKD
DEMETDKQEKKEVPKCGFLPGNEKVISLLALVKPEVWTLKEKCILVITWIOHLIPKIEDGNDFGVAIQEKVLERV
NAVKTKEAFQTTISKYFSERGDVAKASKETHVMDYRALVHERDEAAYGELRAMVLDLRAFYAELYHISSNLE
KIVTPKGEEKPSMY

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FIGURE 267

AGTCAAGATGGAGGAGTACGCGGAGAGCCTTGCCCATGGCGAATTGTGGATGACTGTGGTGGGGCCTTTACGAT
GGGTACCATTGGTGGTGGTATCTTTCAAGCAATCAAAGGTTTTTCGCAATTCTCCAGTGGGAGTAAACCACAGACT
ACGAGGGAGTTTGACAGCTATTAAAACCAGGGCTCCACAGTTAGGAGGTAGCTTTGCAGTTTGGGGAGGGCTGTT
TTCCATGATTGACTGTAGTATGGTTCAAGTCAGAGGAAAGGAAGATCCCTGGAATCCATCACAAGTGGTGCCTT
AACGGGAGCCATACTGGCAGCAAGAAATGGACCAGTGGCCATGGTTGGGTTCAGCCGAATGGGTGGCATTCTCCT
AGCTTTAATTGAAGGAGCTGGTATCTTGTGACAAGATTTGCCTCTGCACAGTTTCCCAATGGTCTCAGTTTGC
AGAAGACCCCTCCCAGTTGCCTTCAACTCAGTTACCTTCCTCACCTTTTGGAGACTATCGACAATATCAGTAGGA
CTTCTTTCCCTAGGATTTCTTTAACAGAACGAGTTGTGGTTCGAGAAGGATTTTCAAGATCAAGTTACAGTCTGT
TTTTAAACCATAGGTGGGACAGCTATGGCCAATAGGCTATAAAGAGACATTTAGCACTTTTTTCTATTTAAAGG
AACAAGCGGGGAAGGGTGCTAAAAGATAATACGTTTATTTATTCACACTTGAATTGCATTTGTGATCAAATAAA
TGTTTAAATCGCTAAAGGAAAATACAGTAAGTGCTTGAAGAGTGAAGGACCAAAAGGCCAAAAAACAGTGAAATA
TGATCATCATCTCTTGCAGACTTCTCTGCCTGGTTTTGTGTGTTCTGTTATTCAAACAATAAAAAGCTGGTGGAA
CTTACTCTTTCTTTAAGATAAGTTGTAGACTTCGATGTTTCATGCTCATGTACTTCAAATAATGCATGTTTTAT
AGTTAGTCCCTCATCACTTGAAGTGACTTCTGAGAATTATGCAGAGTCAACATGGATCATTTACAGTGAGATGC
TTTATGGATTGAAGGATATGGTAAAATGTTTATAGTTTACTTTGAAAGTAAAATATACTATGTCCTGGTTTTGAG
GATATTGGATACAAAACCTCTCTTCCCTTTAGGGCTACTGAGTCTTGATTCCCTGATCATCAGAAATTTACCAGAAA
CAACTTGCTTCCAATATACCAATTCTATATGAAGAATTCATGGAGAGTGTACTGGCACTGGAAGAGTTTGTGT
TTCTTGATGCTTGAAAATAAAGTATGTACTGTTTTGAATGTGTTCCAAGTCTCTGCATAAACGATGATTTTG
GGGTCTGGTTGGGCCTGGAAAATGGATGAGCACTTCAGAACAGGTCATTTTCTGATATTGGAAGTGACATGTGG
CCCTATAGGAGGCATGATGTTAGTTAATTACACATTTGCCTACATCTGTGGGAAATGGAGAACAAAGCCATGTGG
GTACTGTAAACACACGTTTATCTTTTGGCCCAATGCCATACATATGGTAGGCATTTAATTACTGATTGTGTTTGG
ATAATTTGGGAATTTTCGACTGTGGTAAAATATACATAAAATAATACTTATTAATAAAAAAAAAAAAAAAAAA

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FIGURE 268

MEEYAREPCPWRIVDDCGGAFMTGTIGGGIFQAIKGFRNSPVGVNHLRGSLTAIKTRAPQLGGSFAVWGGLFSM
IDCSMVQVRGKEDPWNSITSGALTGAILAARNGPVAMVGSAAAMGGILLALIEGAGILLTRFASAQFPNGPQFAED
PSQLPSTQLPSSPFGDYRQYQ

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FIGURE 269

AGAGGCTTCCCTGGCTGGTGCCTGAGCCCGGCGTCCCTCGCCCCCGCCCTCCCCGCATCCCTTCTCCTCCCTCGC
GCCTGGCCCTGTGGCTCTTCTCCCTCCCTCCTTCCCCCCCCCCCCACCCCTCGCCCGCTGCCTCCCTCGGCCCA
GCCAGCTGTGCCGGCGTTTGTGGCTGCCCTGCGCCCGGCCCTCCAGCCAGCCTTCTGCCGGCCCCGCCGCGATG

GAGGTGCCCCAGCCGGAGCCCGGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCAGCGTCCG
GGCCACCTCCCGGGCCTCTGTGGATCTCATGGCTCCTGGGGTCCCCGGTGGGGCGGCCGCTTCTCGCCG
GTCACCACCTCACCAGACCATGCACGACCTCGCCGGGCTCGGCAGCCGAGCCGCTGACGCACCTATCCCTG
TCTCGACGGGCATCCGAATCCTCCTGTCTGATCTGAATCCTCCGAATCTTCTGATGCAGGTCTCTGCATGGATTCC
CCCAGCCCTATGGACCCCCACATGGCGGAGCAGACGTTTGAACAGGCCATCCAGGCAGCCAGCCGGATCATTCCA
AACGAGCAGTTTGGCCATCAGACGCTTCCAGTCTATGCCGGTGAAGGCTGCTGGGCCACAGCCCCGTGCTTCGGAAC
ATACCAACTCCAGGCGCCCGACGCGCCGAGGAAGAGCGAGGCGGGCAGTGGAGCTGCCAGCAGCTCTGGGGAA
GACAAGGAGAATGTGCGCTTCTGGAAGCGCGGGTGGGAGCTCTCCGGGAAGAGGAGGGGGCATGCTGGGGTGGT
TCCCTGGCATGTGAGGACCCTCCTCTCCCATCTTGGCTGCAGGATGGATTGTCTTCAAGATGCCATGGAAGCCC
ACACATCCAGCTCCACCCATGCTCTGGCAGAGTGGGCCAGCCGAGGGAAGCCTTTGCCAGAGACCCAGCTCG
GCCCCGACCTGATGTGTCTCAGTCTGACCGGAAGATGGAAGTGGAGGAGCTCAGCCCCCTGGCCCTAGGTGCG
TTCTCTCTGACCCCTGCAGAGGGGGATACTGAGGAAGATGATGGATTGTGGACATCTAGAGAGTGACTTAAAG
GATGATGATGCAGTTCCCCAGGCATGGAGAGTCTCATTAGTGCCCCACTGGTCAAGACCTTGAAAAAGGAAGAG
GAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGCTCTTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGG
CCCATCCTCAAGAGGCTGGAGCGGCCCCAGGACAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACC
CCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCGCGTCTCCGCTCAAAATCACTGTGTACGATGAG
ATCGAGAACCTCCTGGACAGTGACCACCGAGAGCTGATTGGAGATTACTCTAAGGCCTTCTCTACAGACAGTA
GACGGAAGCACCAAGACCTCAAGTACATCTCACCAGAAACGATGGTGGCCCTATTGACGGGCAAGTTCAGCAAC
ATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTG
AACTTGCCCTTGAACGCGACGCGCGAGAGCTTCTACTGAAGAGCCCCATCGCGCCCTGTAGCCTGGACAAGAGA
GTCATCCTCATTTTCCACTGTGAATTCTCATCTGAGCGTGGGCCCCGATGTGCCGTTTCATCAGGGAACGAGAC
CGTGCTGTCAACGACTACCCAGCCTCTACTACCCCTGAGATGTATATCTGAAAGCGGCTACAAGGAGTCTTTC
CCTCAGCACCCGAACTTCTGTGAACCCAGGACTACCGGCCATGAACCACGAGGCCTCAAGGATGAGCTAAAG
ACCTTCCGCTCAAGACTCGCAGCTGGGCTGGGGAGCGGAGCCGGCGGGAGCTCTGTAGCCGGCTGCAGGACCAG
TGAGGGGCGCTGCCCGAGTCTGTACCTCCCTTGCCCTTTCGAGGCGCTGAAGCCAGCTGCCCTATGGGCTGCCGG
GCTGAGGGCCTGCTGGAGGCCTCAGGTGCTGTCCATGGGAAAGATGGTGTGGTGTCTGCTGTCTGCCCCAGCC
CAGATTCCCCTGTGTATCCCATCATTTTCCATATCCTGGTGGCCCCACCCCTGGAAGAGCCCAGTCTGTTGAG
TTAGTTAAGTTGGGTAAATACCAGCTTAAAGGCAGTATTTGTGTCTCCAGGAGCTTCTGTTTCTTGTAGG
GTTAACCTTTCATCTTCTGTGTCTGAAACGCTCCTTTGTGTGTGTGTGAGCTGAGGCTGGGGAGAGCCGTGGT
CCCTGAGGATGGGTCAGAGCTAAATCCTTCTGGCCTGAGAGTCAGCTCTCTGCCCTGTGTACTTCCCGGGCCA
GGGCTGCCCTAATCTCTGTAGGAACCGTGGTATGTCTGCCATGTTGCCCTTTCTCTTTTCCCCTTTCTGTCC
CACCATACGAGCACCTCCAGCTGAACAGAAGCTTACTCTTTCTATTTCAAGTGTACCTGTGTGCTTGGTCT
GTTTGACTTTACGCCCATCTCAGGACACTTCCGTAGACTGTTAGGTTCCCCTGTCAAAATACAGTTACCCACTC
GGTCCAGTTTTTGTGCCCCAGAAAGGATGTTATTATCCTTGGGGGCTCCAGGGCAAGGTTAAGGCCTGAAT
CATGAGCCTGCTGGAAGCCCAGCCCTACTGCTGTGAACCTGGGGCCTGACTGCTCAGAACTTGCTGCTGTCTT
GTTGCGGATGGATGGAAGGTTGGATGGATGGGTGGATGGCGTGGATGGCGTGGATGCGCAGTGCCTTGATAC
CCAAACCAGGTGGGAGCGTTTTGTTGAGCATGACACCTGCAGCAGGAATATATGTGTGCCTATTTGTGTGGACAA
AAATATTTACACTTAGGGTTTGGAGCTATTCAAGAGGAAATGTACAGAAGCAGCTAAACCAAGGACTGAGCACC
CTCTGGATTCTGAATCTAAGATGGGGGCAGGGCTGTGCTGAAGGCCCTGCTGAGTCATCTGTTAGGGCCTTGG
TTCAATAAAGCACTGAGCAAGTTGAGAAAAA

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FIGURE 270

MEVPQPEPAPGSALSPAGVCGGAQRPGHLPGLLLGSHGLLGSPVRAAASSPVTTLTQTMHDLAGLGSRSRLTHLS
LSRRASESSLSESSESSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIRNEQFAIRRFQSMFVRLLGHSPLR
NITNSQAPDGRRKSEAGSGAASSGEDKENVRFWKAGVGALREEEGACWGGSLACEDPPLPSWLQDGFVFKMPWK
PTHPSSTHALAEWASRREAFQRPSSAPDLMCLSPDRKMEVEELSPLALGRFSLTPAEGDTEEDDGFVDILESDL
KDDDAVPPGMESLISAPLVKTLEKEEEKDLVMYSKCQRLFRSPSMPCSVIRPILKRLERPQDRDTPVQNKRRRSV
TPPEEQEAEKPKARVLRKSLCHDEIENLLSDHRELIGDYSKAFLLQTVDGKHQDLKYISPETMVALLTGKFS
NIVDKFVIVDCRYPYEGGHIKTAVNLP LERDAESFLKSPIAPCSLDKRVILIFHCEFSSERGPRMCRFIRER
DRAVNDYPSLYPEMYILKGGYKEFFQHPNFCEPQDYRPMNHEAFKDELKTFRLKTRSWAGERSRRELCSRLQD
Q

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FIGURE 271

GAATTCGCTAGACTAAGTTGGTCAATGATGCAGAAGCTACTCAAATGCAGTCGGCTTGTCTGGCTCTTGCCCTC
ATCCTGGTTCTGGAATCCTCAGTTCAAGGTTATCCTACGCAGAGAGCCAGGTACCAATGGGTGCGCTGCAATCCA
GACAGTAATTCTGCAAACCTGCCTTGAAGAAAAAGGACCAATGTTCGAACTACTTCCAGGTGAATCCAACAAGATC
CCCCGTCTGAGGACTGACCTTTTTCCAAAGACGAGAATCCAGGACTTGAATCGTATCTTCCCACTTCTGAGGAC
TACTCTGGATCAGGCTTCGGCTCCGGCTCCGGCTCTGGATCAGGATCTGGGAGTGGCTTCCCTAACGGAATGGAA
CAGGATTACCAACTAGTAGACGAAAGTGATGCTTTCCATGACAACCTTAGGTCTCTTGACAGGAATCTGCCCTCA
GACAGCCAGGACTTGGGTCAACATGGATTAGAAGAGGATTTTATGTTATTAAAGAGGATTTTCCCACTTGACAC
CAGGCAATGTAGTTAGCATATTTTATGTACCATGGTTATATGATTAATCTTGGGACAAAGAATTTTATAGAAAT
TTTAAACATCTGAAAAAGAAGCTTAAGTTTTATCATCTTTTTTTTTCTCATGAATCTTAAAGGATTATGCTTTA
ATGCTGTTATCTATCTTATTGTTCTTGAAAATACCTGCATTTTTTGGTATCATGTTCAACCAACATCATTATGAA
ATTAATTAGATTCCCATGGCCATAAAATGGCTTTAAAGAATATATATATATTTTTTAAAGTAGCTTGAGAAGCAAA
TTGGCAGGTAAATATTTTATACCTAAATTAAGACTCTGACTTGGATTGTGAATTATAATGATATGCCCTTTTCTT
ATAAAAACAAAAAAAATAATGAAACACAGTGAATTTGTAGAGTGGGGGTATTTGACATATTTTACAGGGTGGA
GTGTACTATATACTATTACCTTTGAATGTGTTTGCAGAGCTAGTGGATGTGTTTGTCTACAAGTATGATTGCTGT
TACATAACACCCCAAATTAACCTCCCAAATTAACACAGTTGTGCTGTCAATACCTCATACTGCTTTACCTTTTT
TTCCTGGATATCTGTGTATTTTCAAATGTTACTATATATTAAAGCAGAAATATAACC

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FIGURE 272

MMQKLLKCSRLVLALALILVLESSVQGYPTQRARYQWVRNPDNSANCLEEKGPMFELLPGESNKIPRLRTDLF
PKTRIQLNRIFFLSEDYSGSGFGSGSGSGSGSGFLTEMEQDYQLVDESDAFHDNLRSLDRNLPSDSQDLGQH
GLEEDFML

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FIGURE 273

CCGGTCCTGAGACACGCTGTGTGGCTGAAAAGTGAAAGGCAAGAGCTCATTGGCCTCTGTGCTCCCCCTCCGCAAG
GGATCGTTTCTCCAGAAGAGCTGGATATTCTTTCCGCCAGTTATGCGAGACAAGTTAACGAGAATTGCTATTGTC
AACCATGACAAATGTAAACCTAAGAAATGTCGACAGGAATGCAAAAAGAGTTGCTCTGTAGTTCGAATGGGAAAA
TTATGCATAGAGGTTACACCCAGAGCAAAATAGCATGGATTTCCGAAACTCTTTGTATTGGTTGTGGTATCTGT
ATTAAGAAATGCCCTTTGGCGCCTTATCAATTGTCAATCTACCAAGCAACTTGGAAAAAGAAACCACACATCGA
TATTGTGCCAATGCCTTCAAACCTTCACAGGTTGCCTATCCCTCGTCCAGGTGAAGTTTGGGATTAGTTGGAAC
AATGGTATTGGAAGTCAGCTGCTTTAAAAATTTTAGCAGGAAAAACAAAGCCAAACCTTGGAAAGTACGATGAT
CCTCCTGACTGGCAGGAGATTTGACTTATTTCCGTGGATCTGAATTACAAAATTACTTTACAAAGATTCTAGAA
GATGACCTAAAAGCCATCATCAAACCTCAATATGTAGCCAGATTCTAAGGCTGGCAAAGGGGACAGTGGGATCT
ATTTTGGACCGAAAAAGATGAAACAAAGACACAGGCAATTGTATGTCAGCAGCTTGATTAAACCCACCTAAAAGAA
CGAAATGTTGAAGATCTTTTCAGGAGGAGAGTTGCAGAGATTGCTTGTGCTGTCGTTGCATACAGAAAGCTGAT
ATTTTCATGTTTGTAGAGCCTTCTAGTTACCTAGATGTCAAGCAGCGTTTAAAGGCTGCTATTACTATACGATCT
CTAATAAATCCAGATAGATATATCATTGTGGTGGAAACATGATCTAAGTGTATTAGACTATCTCTCCGACTTCATC
TGCTGTTTTATATGGTGTACCAAGCGCCTATGGAGTTGTCATATGCCTTTTAGTGTAAGAGAAGGCATAAACATT
TTTTTGGATGGCTATGTTCCAACAGAAAACCTTGAGATTGAGAGATGCATCACTTGTTTTTAAAGTGGCTGAGACA
GCAATGAAGAAGAAGTTAAAAAGATGTGTATGTATAAATATCCAGGAATGAAGAAAAAATGGGAGAATTTGAG
CTAGCAATTGTAGCTGGAGAGTTTACAGATTCTGAAATTATGGTGTGCTGGGGGAAAAATGGAACGGGTAAAACG
ACATTTATCAGAATGCTTGTGCTGGAAGACTTAAACCTGATGAAGGAGGAGAAGTACCAGTTCTAAATGTCAGTTAT
AAGCCACAGAAAATTAGTCCCAAATCAACTGGAAGTGTTCGCCAGTTACTACATGAAAAGATAAGAGATGCTTAT
ACTACCCACAATTTGTGACCGATGTAATGAAGCCTCTGCAAAATTGAAAACATCATTGATCAAGAGGTGCAGACA
TTATCTGGTGGTGAACCTACAGCGAGTACGTTTACGCCTTTGCTTGGGCAACCTGCTGATGTCTATTTAATTGAT
GAACCATCTGCATATTGGATTCTGAGCAAAGACTGATGGCAGCTCGAGTTGTCAAACGTTTCATACTCCATGCA
AAAAAGACAGCCTTTGTTGTGGAACATGACTTCATCATGGCCACCTATCTAGCGGATCGCGTCATCGTTTTTGAT
GGTGTTCATCTAAGAACACAGTTGCAACAGTCTCAAACCTTTTGGCTGGCATGAATAAATTTTGTCTCAG
CTTGAAATTACATTCAGAAGAGATCCAAACACTATAGGCCACGAATAAACAACTTAATTCAATTAAGGATGTA
GAACAAAAGAAGAGTGGAACTACTTTTTCTGGATGATTAGACTGACTCTGAGAATATTGATAAGCCATTTATT
AAAAGGAGTATTTACTAGAATTTTTTGTATATAAACTTGAATCAGGATTTATGCCCCACATACTCTGGAAC
TGAAGTATAATATACTTAATATAACATAAAAGCCAGTTGGGTTCTAAATTGTAGTTGAAACACAGAAAATGCCA
CTTTCTGTTCTGAAGAGGCTCTTTTGTGCATAATATTCTAAATGAAGACATTTCAAGCTATACAAATTACTT
CCAAGTTTTCATGATGTATGGGAAGATTTTCAGTAGGTGATTATATTACGGTACCAATGCTGACCAGTGTG
CTCCATTTTTTAAATCTTGAAAGGGTTTCTGTACTTACCTGGTTTGCCAAGTATGCCAGTGAATGAACTGCC
CTTATTTTAAAGCCAGTCAAAGATTCCTGATTGACATTGATAAATAACATCAGGATTATGTTTATTGTTT
GTTTTCAGTCTTTGCACTATATTACAGTATATGGTTTCCGAGGAAGATTATCTACTGCAAAACACCAGTGTG
AAAAATAGGTATTTTTAAATTGTTTTTAATCCTTTTTTGGTGTCTTTAAACATGTTAAGCAAAAACCAATTAG
TCCATTCCCCGCAAAAACCCCTAACTTTACTCTGAACTTTTTTGTTTTTGCATTCCATGAGGTTCTGTATTCA
GTCATTCTCTAGGTAATGTCATTTTTGTACACATATATTTATATAATCACTGATTGAGATTTAGGAAAAAGCATT
TCTAAAGAATATTTGCTTCCCTTAGAACTACAGACTCGAAATCTTTAAAGATGGTGCCTAAGCATCTATGTATTT
TTTTTAAGTTCCACAGATTTTCTGTTGGGCAAGGATTATAAACCCTTCCCTAAAGGCAACATTAATGC
AAAAGTCCCCAGATGGCAATACAAAGTATCCCTGGTACCACATATATTCATTTGTGAGTTTGGATATAGAGCAC
ATTATCTAAACCATTTGTAGTTCCAAAACCCATCTAAATTTCTTGAGTTCTGAATTTTGAACAGGATTACCT
GGAGCCTGGAGCCACTTTAAGTTGTACTTCTGACTAACTGGAATTATGAGTGAGGAAGAGTGTCTACTAAATAA
ATGACTGGGGCAAGCAAAATTGAGGAGGAAATTAGAACTGTTTGACAACTTTAAGAGCTACTTGAATAACAG
AAGTCTTGATTAATATGCAATAATGGCTAGAAAGTATGGTTTAACTGGACCCATTTATGCCTTTTTAAAAATAAT
TTCAGTAACCCATAAATACATGTTGTAAAAAATTCAATATACAGAATGGAATAAAAAAATGATCTCCCTTTATT
ACCCTCCCAAAGGTTACCAGCGTTGAATTTAATAATGTATATTCTTCATGCTTTTTTCTGTGCACTTACCTAA
GTGTGAATATGTAAAGGGTTGTTTTGTATACAAATGGGATTATACTAAATAAGTAATGCCTATTTTTAAGGAT
AGGTTAAATTTGTGAATGATCATTTCAAATATATTGAATAAATAAGCAAAAGCTATTGTTATTACTGATCCTG
AA

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FIGURE 274

MADKLTRIAIVNHDCKPKKCRQECKKSCPVVRMGKLCIEVTPQSKIAWISETLCIGCGICIKKCPFGALSIVNL
PSNLEKETTHRYCANAFKLHRLPIPRPGEVLGLVGTNGIGKSAALKILAGKQKPNLGKYDDPPDWQEILTYFRGS
ELQNYFTKILEDDLKAI IKPQYVARFLRLAKGTVGSILDRKDETKTQAIVCQQLDLTHLKERNVEDLSGGELQRF
ACAVVCIQKADIFMFDEPSSYLDVKQRLKAAITIRSLINPDRIIIVVEHDLVLDYLSDFICCLYGVPSAYGVVT
MPFSVREGINIFLDGYVPTENLRFRDASLVFKVAETANEEVKKMCMYKYPGMKKKMGEFELAIIVAGEFTDSEIM
VMLGENG TGKTTFIRMLAGRLKPDEGGEVPVLNVSYKPQKISPKSTGSRVQLLHEKIRDAYTHPQFVTDVMKPLQ
IENIIDQEVQTLSSGGELQRVRLRLCLGKPADVYLIDEPSAYLDSEQRLMAARVVKRFILHAKKTAFVVEHDFIMA
TYLADRVIVFDGVPSKNTVANSPTLLAGMNKFLSQLEITFRRDPNNYRPRINKLNSIKDVEQKKSGNYFFLDD

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FIGURE 275

CCGGAGGAGTCCGAGAGGAAGCGGAGGCGCGAGCTGGAGGCGGCGGCTCCCGTCGGCCTCCGGCAGGACTGAGCG
CTGGGAGGCCGGAAGGCGGGCGCGCACGGCGGAGAGGCGGGGAGGCCGAGCATATTAATGAAAAGTGCCAT
AAACTGAAAAACCAACATGAGGGTAGCAGGTGCTGCAAAGTTGGTGGTAGCTGTGGCAGTGTCTTTACTGACAT
TTTATGTTATTTCTCAAGTATTTGAAATAAAAAATGGATGCAAGTTTAGGAAATCTATTTGCAAGATCAGCATTGG
ACACAGCTGCACGTTCTACAAAGCCTCCAGATATAAGTGTGGGATCTCAAAAGCTTGCCCTGAGAAGCATTG
CTTTTAAATGGCAAGTGGAGCAGCCAACGTGGTGGGACCCAAATCTGCCTGGAAGATAATGTTTTAATGAGTG
GTGTTAAGAATAATGTTGGAAGAGGGATCAATGTTGCCCTTGGCAAATGGAAAAACAGGAGAAGTATTAGACACTA
AATATTTTGACATGTGGGGAGGAGATGTGGCACCATTATTGAGTTTCTGAAGGCCATACAAGATGGAACAATAG
TTTTAATGGGAACATACGATGATGGAGCAACCAAATCAATGATGAGGCACGGCGGCTCATTGCTGATTTGGGGA
GCACATCTATTACTAATCTTGGTTTTAGAGACAACCTGGTCTTCTGTGGTGGGAAGGGCATTAAAGACAAAAAGCC
CTTTGAACAGCACATAAAGAACAATAAGGATACAAACAAATATGAAGGATGGCCTGAAGTTGTAGAAATGGAAG
GATGCATCCCCAGAAGCAAGACTAATGGAATGTGGAGAGAATTGAAGAAAGCGCACTTTCACCTCTAATGGGA
GAGCTATAAATGGCAGAGCTATGTGTAATAATTTAAGAGCATGCAGCCATCTTGGTGTGTGCATGAGTATTGTC
TCTTTTGATATCAGGATTATTTATTGCTAACGTAAATAGATAGCATTGTAAATAATCATCACAATGATCAAATCA
CTGAACCATGTCTCCGCACATTTCCCTAAAAGTACAATGTTAGACTGCTATGGTAATACATATTTTAAATTCTA
AAAGCATACACAATGTGTAAGTGAATGGTTTGTGAAAAATATATTGATATATATACTAGTTGCTATGAAAATATC
ATGGAATAATAGGGATTTTAGGGTGGTACTTTATTTTCTTTATGTTTCTATATGTTGCGTTGTGATGACATTA
TCTTTTAAATTAAAAAGAGATTTGGCTAGTTGTGTGTGTAATGTTACTTTACAGTCCGACTCTCCTGATGTACCT
CTTTTCATGATCTTTTTCTTTCTTCCCAAGAACTGAGGAATGTTAATATGAAAACATACATCGGATATGTGA
AAAGCACAAACAAATCTTAATGTACACAGTAAAAAGTAAATATATAAATGTAGATGGCATTAGGACCACAGC
TTGCTGGATTTGTGTTAGCTATGGGAATAACTTGATTTTGTATAAGCTATTTAGAGTGAGGCTGGAGGTGGCAGC
TTCACAGAAGTGGAGAACCAGGCCAAGTCCCTCCCCAACCTAATTAGGTCATTGAGGACAGCTAAGTCAGTATA
TTTAGAGCAATACTAGCATACGTTTTCTTAATTGTTATCAGCATTGACCAAGTGGTTTGGGAAGGAGGCATGCTT
TAATATCACAATAATTTGATTTGTAAACCAAGAAATTAATCCTGTGTTTATCTAAGTTCATAATAGCAATTATT
GCCCCAAGCTATAGTGGCATATTTACAAAAGTTCTTATTACTGGGCGGACTGATAACATTTAAAAATAATTGTG
TTTGACCCCAAATGACTTTTATACCAATTCTACATAAAAAATATAGAAGATCTATCTTTTTTTGTACCTTCAGAT
GTTCACTAAATAACTCAGTTTTTAAGCAGAAGTTTCAGGGCATTAATATATGTTGTGTATGAAGTATCTCAAA
CTGGAACATAAATTTAGTGATCAAATGCCATTACAGTGTAAGGCAGCACTTAAATTTGCAACCTAAAGTTTAG
ATGCATTGTATAAAAAACCTAAAGCAGTATCTGTTATTTAGCTGTAAACCAAGTTGGAAGCTATTCGGATAAT
TTCTTAAATATTGATGAACTTTGAGTACTGTTTCTTCTTCAAATGAATGTAATTAATTCATGAATAAATGCA
CCTTATATGTTTAAACAATCTTGTATACTTTTGGGATTTTTGGTGCTTATATGCTAAATCACATTCAGCATGTG
TATTTTGACATTTAAATACTTCCCTCAATTCTGTAAATTAAGAATAGTTATTTTACAGTTCCAGGGATTGTG
AAATAAATGTTGCAGTTTTTTAAATAATGAAAATAAATACTCTTGGTTTTGCTTTGTGAAAAA

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FIGURE 276

MRVAGAAKLVVAVAVFLTFYVISQVFEIKMDASLGNLFARSALDTAARSTKPPRYKCGISKACPEKHFAFKMAS
GAANVVGPKICLEDNVLMMSGVKNNVGRGINVALANGKTGEVLDTKYFDMWGGDVAPFIEFLKAIQDGTIVLMGTY
DDGATKLNDEARRLIADLGSTSITNLGFRDNWVFCGKGIKTKSPFEQHIKNNKDTINKYEGWPEVVEMEGCIPQK
QD

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FIGURE 277

TACTGACTTTTACGACCAACTTGTGGTCCCAGGTAAGTTTCCACGCTGGTACTTTAGCCCTGGGCTCGAACCTGC
GGACACGCTGTGGCTGCAACTCCCCGCCCGCCAGACCTCAGTACGCAGCGCGGCTGGTGAGAAACATAATGCACT
CTGACTTCCACGCGTGGAATGGGGAGATGGACTGCACGGCGGGCGGACCTGCTCGGGCTGATGGACGGCAGGTGG
ACTGATGTGCGCAGGGACTGGCGGCAGCGCGGTGAGAGCCAGTCAGCCAAAGCCAGGCCAGCACAACTAGACTGTC
CCGGTTCCCCGCCAGGAGGCGGCCGAGCACCAACTGTACGGTACTGCGCTGCGCCGCGACCGCCAACGCGCCCAG
TCTACGCTTGCGCGGCGCAACAGGGCCGACTGCAGCTGGAAGATGGCGGCGTCCGTGGTCTGTGCGGGCCGCTACC
GCCGGGGCACAAGTGCTATTGCGCGCCCGCCGCTGCGCGGCCCTGCTGCGGACGCCAGCCTTGCGGAGTACGGCA
ACCTTCGCTCAGGCGCTCCAGTTCGTGCCGGAGACGCAGGTTAGCCTGCTGGACAACGGCCTGCGTGTGGCCTCC
GAGCAGTCTCTCAGCCCACTTGACGGTGGGAGTGTGGATTGATGTTGGCAGCCGTTTTGAGACTGAGAAGAAT
AATGGGGCAGGCTACTTTTTGGAGCATCTGGCTTTCAAGGGAACAAAGAATCGGCCTGGCAGTGCCTTGAGAAG
GAGGTGGAGAGCATGGGGGCCATCTTAATGCCTACAGCACCCGGGAGCACACAGCTTACTACATCAAGGCGCTG
TCCAAGGATCTGCCGAAAGCTGTGGAGCTCCTGGGTGACATTGTGCAGAACTGTAGTCTGGAAGACTCACAGATT
GAGAAGGAACGTGATGTGATCCTGCGGGAGATGCAGGAGAATGATGCATCTATGCGAGATGTGGTCTTTAACTAC
CTGCATGCCACAGCATTCCAGGGCACACCTCTAGCCAGGCTGTGGAGGGGCCAGTGAGAATGTCAGGAAGCTG
TCTCGTGCACTTGACCGAGTACCTCAGCACACATTACAAGGCCCTCGAATGGTGTGGCAGCAGCTGGAGGA
GTGGAGCACCAGCAACTGTTAGACCTCGCCCAGAAGCACCTCGGTGGCATCCCATGGACATATGCAGAGGACGCT
GTGCCCCTCTTACTCCATGCCGCTTCACTGGCAGTGAGATCCGCCACCGTGATGATGCTCTACCTTTTGGCCAC
GTGGCCATTGCAGTAGAGGGTCTGGCTGGGCCAGCCCGGACAGTGTGGCCTTGCAAGTGGCCAATGCCATCATC
GGCCACTATGACTGCACCTTATGGTGGTGGCGTGACCTGTCCAGCCCACTGGCTTCAGGTGCTGTGGCCAAACAAG
CTATGCCAGAGTTTCCAGACCTTCAGCATCTGCTATGCAGAGACGGGCTTGCTGGGTGCACACTTTGTCTGTGAC
CGAATGAAAATCGATGACATGATGTTCTGCTCCTGCAAGGGCAGTGGATGCGCCTGTGTACCAGTGCCACGGAGAGT
GAGGTGGCCCGGGGCAAAAACATCCTCAGAAATGCCCTGGTATCTCATCTAGATGGCACTACTCCTGTGTGTGAG
GACATCGGACGCAGCCTCCTGACCTATGGCCGCCGATCCCCCTGGCTGAATGGGAAAGCCGGATTGCGGAGGTG
GATGCCAGTGTGGTACGTGAGATCTGCTCCAAGTACATCTATGACCAGTGCCAGCAGTGGCTGGATATGGCCCC
ATTGAGCAGCTCCCAGACTACAACCGGATCCGTAGCGGCATGTTCTGGCTGCGCTTCTAGGCGGGAAGCCTATGT
AAGCAAGAGGGCAGGGCCGGGTTTGTGGTCCCCCCCCACCACAAACACAGCACTTCGGCTCCTCTAACCTGTG
CCACAGGTGACCACCAATAAAATCCTCTGCTGAGA

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FIGURE 278

MAASVVCRAATAGAQVLLRARRSPALLRTPALRSTATFAQALQFVPETQVSLLDNGLRVASEQSSQPTCTVGVWI
DVGSRFETEKNNAGYFLEHLAFKGTKNRPGSALEKEVESMG AHLNAYSTREHTAYYIKALSKDLPKAVELLGDI
VQNCSEDSQIEKERDVILREMQENDASMRDVVFNYLHATAFQGTPLAQAVEGPS ENVRKLSRADLTEYLS THYK
APRMVLAAAGGVEHQQLDLAQKHLGGIPWTYAEDAVPTLTPCRFTGSEIRHRDDALPFAHVAIAVEGPGWASPD
SVALQVANAIIGHYDCTYGGGVHLSSPLASGAVANKLCQSFQTF SICYAETGLLGAHFVCDRMKIDDMFVLQGG
WMRLCTSATESEVARGKNILRNALVSHLDGTPVCEDIGRSLTYGRRIP LAEWESRIAEVDASV VREICSKYIY
DQCPAVAGYGPIEQLPDYNRIRSGMFWLRF

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FIGURE 279

GGCACACACGAGGAGGAGGGTTGAGCTGCTGCCGCCGCCCTCTGTCTGTCGCGAGTGTGGAGTCGGGACTG
GAGCTGCTGCCGCGGCGACGCCGGGGATCTTTGTCTGCTAGCTCCCGGCCCTTCTGCCCCGCCGCTTCCCTCAGT
CAGCGTTGCCACTCTCTCCGGCCGGGCGCCCTGCTCCATTTCTGCTCTCTGTCCACACACACACGCCCC
CCCCGATCATGGATCCGGGCAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGAGCAGCAGCGGCAGCAGCA
GCAGCGACTCGGCGCTGACTGCTGGGACCAGGCGGACATGGAAGCCCCGGGCGGGGCCCTTGCGGCGGCGGCG
GCTTCCCTGGCGGCGGCGGCGGAGGCCAGCGGGAGAACCTCAGCGCGGCTTCAGCCGGCAACTCAACGTCAAC
GCCAAGCCCTTCTGTGCCAACGTCCACGCCGCCAGTTCTGTGCCGTCTTCTGCGGGGCCCGGCAGCGCCGCCA
CCCCAGCTGGCGGCGCGGCCAATAACCACGGAGCCGGCAGCGGCGGCGGAGGCCGTGCGGCACCTGTGGAATCC
TCTCAAGAGGAACAGTCATTGTGTGAAGGTTCAAATTCAGCTGTTAGCATGGAACCTTTCAGAACCTATTGTAGAA
AATGGAGAGACAGAAATGTCTCCAGAAGAATCATGGGAGCACAAGAAGAAATAAGTGAAGCAGAGCCAGGGGGT
GGTTCCTTGGGAGATGGAAGGCCGCCAGAGGAAAGTGCCCATGAAATGATGGAGGAGGAAGAGGAAATCCAAAA
CCTAAGTCTGTGGTTGCACCGCCAGGTGCTCCTAAGAAAGAGCATGTAAATGTAGTATTTCATTGGGCACGTAGAT
GCTGGCAAGTCAACCATTGGAGGACAAATAATGTATTTGACTGGAATGGTTGACAAAAGGACGCTTGAAAAGTAT
GAAAGAGAAGCTAAAGAGAAAAACAGAGAACTTGGTACTTGTCTTGGGCCTTAGACACAAATCAGGAAGAACGA
GACAAGGGTAAACAGTAGAAGTGGTTCGTGCCTATTTTGAAACCGAAAAGAAGCATTTCACAATTCTAGATGCC
CCTGGCCACAAGAGTTTTGTCCAAATATGATTGGTGGTGCCTCTCAAGCTGATTGGCTGTGCTGGTAATCTCA
GCCAGGAAAGGAGAGTTTGAAACTGGATTTGAAAAAGGAGGACAGACAAGAGAACATGCAATGTTGGCAAAGACA
GCAGGTGTAAACACCTAATTGTGCTAATTAATAAGATGGATGATCCACAGTAAATGGAGCAATGAGAGATAT
GAAGAATGTAAGGAGAACTAGTGCCATTTTGAAAAAGTTGGCTTCAATCCCAAAAGGACATTCACTTTATG
CCCTGCTCAGGACTTACTGGAGCAATCTCAAAGAGCAGTCGGATTTCTGTCTTGGTACATTGGATTACCGTTT
ATTCCATATCTGGATAATTTGCCGAACCTCAATAGATCAGTTGATGGACCAATCAGGCTGCCAATTGTGGATAAG
TACAAGGATATGGGCACTGTGGTCTGGGAAAGCTGGAATCAGGATCTATTGTAAAGGCCAGCAGCTTGTGATG
ATGCCAAACAAGCACACCGTGAAGTTCTTGAATACTTTCCGATGATGTAGAGACTGATACCGTAGCCCCAGGT
GAAAACCTCAAAATCAGACTGAAAGGAATTGAAGAAGAGGAGATTCTTCCAGGGTTTATACTTTGTGATCCTAAT
AATCTTTGTCAATCTGGACGCACATTTGATGCCCAGATAGTATTATAGAGCACAAATCCATCATCTGCCCAGGC
TATAATGCGGTGCTGCATATTCATACCTGTATTGAGGAGGTGGAATAACAGCCTTAATCTGCTTGGTAGACAAA
AAATCAGGAGAAAAAAGTAAGACCCGACCCCGTTTTGTGAAACAAGATCAAGTATGCATTGCTCGCTTAAGGACA
GCAGGAACCATCTGCCTTGAGACCTTTAAAGACTTCCCTCAGATGGGTCGTTTACCTTAAGAGATGAGGGTAAG
ACCATTGCAATTGGAAAAGTTCTGAAACTGGTTCAGAGAAAGACTAAGCATTTTCTTGATGACCTGCACAATA
CTGTGAGGAAAATTGACTGCAGAAGCCTACTTCACACCGCCTTCTCTTATTTTCTGCCCATTGATAAACCTCTCC
CCATATTTTGCAAAGAGGAAATTCACAGCAAAGTCCACATTATGTCAGCTTCTCATATTGAGAGCTCTGCTAT
GCCACTGTTGAATTTTCCCAAGATTCTGTCCCTAGCCCTCACTTCAAACCTGCTTCTTGGACAGATTTGGC
AATAGCTTTGTAAGTATGTGGACATAATTGCCTACAATAATGAAAACCTACAGGAATTTTTTTATTTTTCATTT
TCCCCTTAGGCATATTTAGTATTTTCCCCAGGCCAGATCATTGAGTGTGCGAGTGTGTGTCACATGTTA
CAAAGGCAACTACCATGTTAATAAAATATTCAATTTG

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FIGURE 280

MELSEPIVENGETEMSPEESWEHKEEISEAEPGGGSLGDGRPPEESAHEMEEEEEEIPKPKSVVAPPGAPKKEHV
NVVFIGHVDAGKSTIGGQIMYLTGMVDKRTLEKYEREAKEKNRETWYLSWALDTNQEERDKGKTVEVGRAYFETE
KKHFTILDAPGHKSFVPMIGGASQADLAVLVISARKGEFETGFEEKGGQTREHAMLAKTAGVKHLIVLINKMDDP
TVNWSNERYEECKEKLVPFLKKVGFNPKKDIHFMPCSGLTGANLKEQSDFCPWYIGLFFIPYLDNLPNFRSVDG
PIRLPIVDKYKDMGTVVLGKLESGSICKGQQLVMPNKHNEVLGILSDDVETDTVAPGENLKIRLKGIEEEEIL
PGFILCDPNNLCHSGRTFDAQIVIIHKSIIICPGYNAVLHIHTCIEEVEITALICLVDDKKSGEKSKTRPRFVKQD
QVCIARLRTAGTICLETFKDFPQMGRFTLRDEGKTIAIGKVLKLVEKD

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FIGURE 281

GCGGCGCTCGCGCCAAGGGACGTGTTTTCTGCGCTCGCGTGGTCATGGAGGCGCTGCCGCTGCTAGCCGCGACAAC
TCCGGACCACGGCCGCCACCGAAGGCTGCTTCTGCTGCCGCTACTGCTGTTCTGCTGCCGGCTGGAGCTGTGCA
GGGCTGGGAGACAGAGGAGAGGCCCCGGACTCGCGAAGAGGAGTGCCACTTCTACGCGGGTGGACAAGGTACCC
GGGAGAGGCATCCCGGGTATCGGTGCGCGACCACTCCCTGCACCTAAGCAAAGCGAAGATTTCCAAGCCAGCGCC
CTACTGGGAAGGAACAGCTGTGATCGATGGAGAATTTAAGGAGCTGAAGTTAACTGATTATCGTGGGAAATACTT
GGTTTTCTTCTTCTACCCACTTGATTTACATTTGTGTGTCCAAGTAAATTATCGCTTTTGGCGACAGACTTGA
AGAATTCAGATCTATAAATACTGAAGTGGTAGCATGCTCTGTTGATTACAGTTTACCCATTTGGCCTGGATTAA
TACCCCTCGAAGACAAGGAGGACTTGGGCCAATAAGGATTCCACTTCTTTCAGATTGACCCATCAGATCTCAA
GGACTATGGTGTATACCTAGAGGACTCAGGCCACACTCTTAGAGGTCTCTTCATTATTGATGACAAAGGAATCCT
AAGACAAATTACTCTGAATGATCTTCTGTGGGTAGATCAGTGGATGAGACACTACGTTTGGTTCAAGCATTCCA
GTACACTGACAAACACGGAGAAGTCTGCCCTGCTGGCTGGAAACCTGGTAGTGAAACAATAATCCAGATCCAGC
TGGAAAGCTGAAGTATTTTCGATAAACTGAATTGAGAAATACTTCTTCAAGTTATGATGCTTGAAAGTTCTCAATA
AAGTTCACGGTTTCATTACCA

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FIGURE 282

MEALPLLAATTPDHGRHRRLLLLPLLLFLLPAGAVQGWETEERPRTREEECHFYAGGQVYPGEASRVSVADHSLH
LSKAKISKPAPYWEGTAVIDGEFKELKLTDIRGKYLVFFFYPLDFTFVCPTEIIAFGDRLEEFRSINTEVVACSV
DSQFTHLAWINTPRRQGGLGPIRIPLLSDLTHQISKDYGVYLED SGHTLRGLFIIDDKGILRQITLNDLPVGRSV
DETLRLVQAFQYTDKHGEVCPAGWKPGSETIIPDPAGKLKYFDKLN

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FIGURE 283

GGAAAAAGCGACTTGTGGCGGTGAGCGTGGCGCAGGCGAATCCTCGGCACTAAGCAAATATGGACCTCGCGGC
GGCAGCGGAGCCGGGCGCCGGCAGCCAGCACCTGGAGGTCCGCGACGAGGTGGCCGAGAAGTGCCAGAACTGTT
CCTGGACTTCTTGGAGGAGTTTCAGAGCAGCGATGGAGAAATTAATACTTGCAATTAGCAGAGGAAGTATTGCG
TCCTGAGAGAAACACATTGGTTGTGAGTTTTGTGGACCTGGAACAATTTAACCAGCAACTTTCCACCACCATTCA
AGAGGAGTTCTATAGAGTTTACCCTTACCTGTGTCGGGCCTTGAAAACATTTCGTCAAAGACCGTAAAGAGATCCC
TCTTGCCAAGGATTTTTATGTTGCATTCCAAGACCTGCCTACCAGACACAAGATTGAGAGCTCACCTCATCCAG
AATTGGTTTGTCTACTCGCATCAGTGGGCAGGTGGTGGGACTCAGCCAGTTCAGCCAGAGCTTGTGAGCGGAAC
TTTTCTGTGCTTGGACTGTCAGACAGTGATCAGGGATGTAGAACAGCAGTTCAAATACACAGCCAAACATCTG
CCGAAATCCAGTTTGTGCCAACAGGAGGAGATTCTTACTGGATACAAATAAATCAAGATTTGTTGATTTTCAAAA
GGTTCGTATTCAAGAGACCCAGCTGAGCTTCTCGAGGGAGTATCCCCCGCAGTTTGAAGTAATTTTAAGGGC
TGAAGCTGTGGAATCAGCTCAAGCTGGTGACAAGTGTGACTTTACAGGGACACTGATTGTTGTGCCTGACGTCTC
CAAGCTTAGCACACCAGGAGCAGTGCAGAACTAATTCCTGTGTCAGTGGTGTGATGGATATGAGACAGAAGG
CATTGAGGACTCCGGGCCCCTTGGTGTAGGGACCTTTCTTATAGGCTGGTCTTTCTGCTGTGTGTTGCGCC
AACCAACCCAGGTTTGGGGGGAAGAGCTCAGAGATGAGGAACAGACAGCTGAGAGCATTAGAACCCTAATGAC
TGTGAAAGAATGGGAGAAAGTGTGAGATGAGTCAAGATAAAATCTATACCACATCTTTGTACCAGCCTGTT
CCCTACTATACATGGCAATGATGAAGTAAACGGGGTGCTCTGTGATGCTCTTTGGTGGCGTTCCAAAGACAAC
AGGAGAAGGGACCTCTCTTCGAGGGGACATAAATGTTGCAATTGTTGGTGACCAAGTACAGCTAAGAGCCAATT
TCTCAAGCAGCTGGAGGAGTTCAGCCCCAGAGCTGTCTACACAGTGGTAAAGCGTCCAGTGTCTGTGGCTTAAC
AGCAGCTGTTGTGAGAGATGAAGAATCTCATGAGTTTGTCAATTGAGGCTGGAGCTTTGATGTTGGCTGATAATGG
TGTGTGTTGATTGATGAATTTGATAAGATGGACGTGCGGGATCAAGTTGCTATTTCATGAAGCTATGGAACAGCA
GACCATATCCATCACTAAAGCAGGAGTGAAGGCTACTCTGAACGCCCGACGTCCATTTTGGCAGCAGCAAACCC
AATCAGTGGACACTATGACAGATCAAAATCATTGAAACAGAATATAAATTTGTCAGCTCCCATCATGTCCCGATT
CGATCTCTTTTATCCTTGTGGATGAATGTAATGAGGTTACAGATTATGCCATTGCCAGGCGCATAGTAGATT
GCATTCAAGAATTGAGGAATCAATTGATCGTGTCTATTCCCTCGATGATATCAGAAGATATCTCTCTTTGCAAG
ACAGTTTAAACCCAAGATTTCCAAAGAGTCAGAGGACTTCATTGTGGAGCAATATAACATCTCCGCCAGAGAGA
TGGTTCTGGAGTGACCAAGTCTTCATGGAGGATTACAGTGCACAGCTTGAGAGCATGATTGCTCTCTCTGAAGC
TAIGGCTCGGATGCACTGCTGTGATGAGGTCCAACCTAAACATGTGAAGGAAGCTTTCCGGTTACTGAATAAATC
AATCATCCGTGTGGAACACCTGATGTCAATCTAGATCAAGAGGAAGAGATCCAGATGGAGGTAGATGAGGGTGC
TGGTGGCATCAATGGTCATGCTGACAGCCCTGCTCTGTGAACGGGATCAATGGCTACAATGAAGACATAAATCA
AGAGTCTGCTCCCAAAGCCTCCTTAAGGCTGGGCTTCTCTGAGTACTGCCGAATCTCTAACCTTATTGTGCTTCA
CCTCAGAAAGGTGGAAGAAGAAGAGGACGAGTCAGCATTAAAGAGGAGCGAGCTTGTTAACTGGTACTTGAAGGA
AATCGAATCAGAGATAGACTCTGAAGAAGAACTTATAAATAAAAAAGAATCATAGAGAAAGTTATTCATCGACT
CACACACTATGATCATGTTCTAATTGAGCTCACCCAGGCTGGATTGAAAGGCTCCACAGAGGGAGTGAGAGCTA
TGAAGAAGATCCCTACTTGGTAGTTAACCTAACTACTTGCTCGAAGATTGAGATAGTGAAAGTAACTGACCAGA
GCTGAGGAAGTGTGGCACAGCACCTCGTGGCCTGGAGCCTGGCTGGAGCTCTGCTAGGGACAGAAGTGTCTTCTGG
AAGTGATGCTTCCAGGATTTGTTTTAGAAACAAGAATTGAGTTGATGGTCTTATGTGTACATTTCATCACAGGT
TTCATACCAACACAGGCTTCAGCACTTCTTTGGTGTGTTTCCGTGCCAGTGAAGTTGGAACCAATAATGTGT
AGTCTCTATAACCAATACCTTTGTTTTCATGTGAAGAAAAGGCCATTACTTTAAGGTATGTGCTGTCTCTATT
GAGCAAATAACTTTTTTTCAATTGCCAGCTACTGCTTTTATTTCATCAAAATAAAATAACTTGTCTG

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FIGURE 284

MDLAAAEPGAGSQHLEVRDEVAEKCQKFLDFLEEFQSSDGEIKYLQLAEELIRPERNTLVVSFVDLEQFNQQL
STTIQEEFYRVYPYLCRALKTFVKDRKEIPLAKDFYVAFQDLPTRHKIRELTSSRIGLLTRISGQVVRTHPVHPE
LVSGTFLCLDCQTVIRDVEQQFKYTQPNICRNPVCANRRRFLDTNKS RFVDFQKVRIQETQAELPRGSIPRSLE
VILRAEAVESAQAGDKCDFGTGLIVVPDVSKLSTPGARAETNSRVSGVDGYETEGIRGLRALGVRDLSYRLVFLA
CCVAPTNPFRGGKELRDEEQTAESIKNQMTVKEWEKVFEMSQDKNLYHNLCTSLFPTIHGNDVKGVLMLFGG
VPKTTGEGTSLRGDINVCIVGDPSTAKSQFLKHVEEFSPRAVYTSKGASSAAGLTAAVVRDEESHEFVIEAGALM
LADNGVCCIDEFDKMDVRDQVAIHEAMEQQTISITKAGVKATLNARTSILAAANPISGHYDRSKSLKQNINLSAP
IMSRFDLFFILVDECNEVTDYAIARRIVDLHSRIEESIDRVYSLDDIRRYLLFARQFKPKISKESEDFIVEQYKH
LRQRDGSVTKSSWRITVRQLESMIRLSEAMARMHCCDEVQPKHVKEAFRLNKSIIIRVETPDVNLDQEEEIOME
VDEGAGGINGHADSPAPVNGINGYNEDINQESAPKASLRLGFSEYCRISNLIVLHLRKVEEEEDESALKRSELVN
WYLKEIESEIDSEEELINKKRIIEKVIHRLTHYDHVLIELTQAGLKGSTEGSESYEEDPYLVVNPNYLLED

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FIGURE 285

GCCCCACCATCAAGGGGAAGAAAGTGCTCTTCGGATTCCGGTTTCGCCCTGGCCTCCCGCAGCCGCCGCGGGACC
GGCCCCAGCACACCCCGGGCGCCGGGCGCGGGGCAGCCGCCCGGACGCGCGGGGCTCAGGCGCCGCGGG
ACCCAGCCCCCAAACCTTTGGCAAGTTGCGGGCGCCGAGCGCACCCGGAGGCGCGGGGCGCGGCCGAGGCGGA
GCCGCCCTGACGCCGGGCGCCCCCTCCCGGCCCGGCCGCCCGGCTCCGCGGAAAGTTTGGCGCGGCC
CCTGCGCCGACCCGGGGCCTGGGTGAGACTGCGGCGGGCAGGGCGCGGACGGCCATATTTGCCGCGCGGCC
CGAGCCGCCGACAACAAAAGTGCGCGGGCGCTCGGCGGGCGCTCGGACGGGCGCGGGGCTGCAGCGCTACCGCC
CGGCCTCGCCGCCCGCCGCCCTCGCGGCCTGGCCCCGCCGCGCCCGGCGCGCCCGCGGGGGGATG

TCTTACAAACCGAACCTTGGCCGCGCACATGCCCGCCGCCCTCAACGCCGCTGGGAGTGTCCTCGCCTTCC
ACCAGCATGGCAACGTCTTACAGTACCGCCAGCTGCTCAGTGACTACGGGCCACCGTCCCTAGGCTACACCCAG
GAACTGGGAACAGCCAGGTGCCCCAAAGCAAATACGCGGAGCTGCTGGCCATCATTGAAGAGCTGGGGAAGGAG
ATCAGACCCACGTACGCAGGGAGCAAGAGTGCCATGGAGAGGCTGAAGCGCGGCATCATTACGCTAGAGGACTG
GTTCCGGAGTGCTTGGCAGAAACGGAACGGAATGCCAGATCTAGCTGCCTTGTTGGTTTTGAAGGATTTCCATC
TTTTTACAAGATGAGAAGTTACAGTTCATCTCCCTGTTGAGATGAAACCTTGTTTTCAAATGGTTACAGTTT
CGTTTTTCTCCCATGGTTCACTTGGCTCTGAACCTACAGTCTCAAAGATTGAGAAAAGATTTGCAGTTAATTA
GGATTTGCATTTTAAGTAGTTAGGAACTGCCAGGTTTTTTTTGTTTTTAAGCATTGATTTAAAAGATGCACGG
AAAGTTATCTTACAGCAAACCTGTAGTTTGCTTCAAGACACCATTGTCTCCCTTTAATCTTCTTTTTGTATACA
TTTGTTACCCATGGTGTTCTTTGTTCTTTTATAAGCTAATAACCACTGTAGGGATTTGTTTTGAACGCATATT
GACAGCACGCTTTACTTAGTAGCCGTTCCCATTTGCCATACAATGTAGGTTCTGCTTAATGTAACCTCTTTTTT
GCTTAAGCATTGTCATGACTATTAGTGCTTCAAAGTCAATTTTTAAAAATGCACAAGTTATAAATACAGAAGAAA
GAGCAACCCACCAAACCTAACAAGGACCCCGAACACTTTCATACTAAGACTGTAAGTAGATCTCAGTTCTGCGT
TTATTGTAAGTTGATAAAAAACATCTGGAAGAAAATGACTAAACTGTTTGCATCTTTGTATGATTTATTACTTG
ATGTAATAAAGCTTATTTTCATTAACAATTGTATTAAAAA

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FIGURE 286

MSYKPNLAAHMPAAALNAAGSVHSPSTSMATSSQYRQLLSDYGPPSLGYTQGTGNSQVPQSKYAELLAIIEELGK
EIRPTYAGSKSAMERLKRGIHARGLVRECLAETERNARS

FIGURE 287A

GCGGGGAAGCAGCAGCGGCCAGGATGAATCCAGGTGCTCTGGAGCTGGATGGTGAAGGTGGCACTCTTCACCC
TCCCGAGCCCTGCCCGTCTCGGCCCATGCCCCACCAGTCAGCCCCGGGCCACAGGCAGTGAGCAGGCACCTGG
GAGCCGAGGCCCTGTGACCAGGCCAAGGAGACGGGCGCTCCAGGGTCCAGCCACCTGTCCCCCATGGAGCTG
AGGCCCTGGTTGCTATGGGTGGTAGCAGCAACAGGAACCTTGGTCTGCTAGCAGCTGATGCTCAGGGCCAGAAG
GTCTTCACCAACACGTGGGCTGTGCGCATCCCTGGAGGCCAGCGGTGGCCAACAGTGTGGCACGGAAGCATGGG
TTCTCAACCTGGGCCAGATCTTCGGGACTATTACCACTTCTGGCATCGAGGAGTGACGAAGCGGTCCCTGTGCG
CCTACCCGCCCGGGCACAGCCGGCTGCAGAGGGAGCCTCAAGTACAGTGGCTGGAACAGCAGGTGGCAAAGCGA
CGGACTAAACGGGACGTGTACCAGGAGCCCACAGACCCCAAGTTTCTCAGCAGTGGTACCTGTCTGGTGTCACT
CAGCGGGACCTGAATGTGAAGCGGCCTGGGCGCAGGGCTACACAGGACACGGCATTTGGTCTCCATTCTGGAC
GATGGCATCGAGAAGAACCACCCGGACTTGGCAGGCAATTATGATCCTGGGGCCAGTTTGTATGTCATGACCAG
GACCCTGACCCCCAGCCTCGGTACACACAGATGAATGACAACAGGCACGGCACACGGTGTGCGGGGAAGTGGCT
GCGGTGGCCAAACAGGTGTCTGTGGTGTAGGTGTGGCTTACAACGCCCGCATTTGAGGGGTGCGCATGCTGGAT
GGCGAGGTGACAGATGACGTGGAGGCACGCTCGCTGGGCTGAACCCCAACACATCCACATCTACAGTGCCAGC
TGGGGCCCCGAGGATGACGGCAAGACAGTGGATGGGCCAGCCCGCTCGCCGAGGAGGCCTTCTTCCGTGGGGTT
AGCCAGGGCCGAGGGGGGCTGGGCTCCATCTTTGTCTGGGCTCGGGGAACGGGGGCCGGGAACATGACAGCTGC
AACTGCGACGGCTACACCAACAGTATCTACACGCTGTCCATCAGCAGCGCCACGCAGTTTGGCAACGTGCCGTGG
TACAGCGAGGCCCTGCTCGTCCACACTGGCCACGACCTACAGCAGTGGCAACCAGAATGAGAAGCAGATCGTGACG
ACTGACTTGGCGCAGAAGTGCACGGAGTCTCACACGGGCACCTCAGCCTCTGCCCCCTTAGCAGCCGGCATCATT
GCTCTACCCCTGGAGGCCAATAAGAACCTCACATGGCGGGACATGCAACACCTGGTGGTACAGACCTCGAAGCCA
GCCCCACCTCAATGCCAACGACTGGGCCACCAATGGTGTGGGCGGAAAGTGAGCCACTCATATGGCTACGGGCTT
TTGGACGCAGGCGCCATGGTGGCCCTGGCCAGAATTGGACCACAGTGGCCCCCAGCGGAAGTGCATCATCGAC
ATCTCACCAGAGCCCAAGACATCGGGAAACGGCTCGAGGTGCGGAAGACCGTGACCGCTGCCTGGGCGAGCCC
AACCACATCACTCGGCTGGAGCACGCTCAGGCGCGGCTCACCCTGTCTATAATCGCCGTGGCGACCTGGCCATC
CACCTGGTCAGCCCCATGGGCACCCGCTCCACCCTGCTGGCAGCCAGGCCACATGACTACTCCGCAGATGGGTTT
AATGACTGGGCTTTCATGACAACTCATTCTGGGATGAGGATCCCTCTGGCGAGTGGGTCTAGAGATTGAAAAC
ACCAGCGAAGCCAACAACATATGGGACGCTGACCAAGTTACCCCTCGTACTCTATGGCACCGCCCCTGAGGGGCTG
CCCGTACCTCCAGAAAGCAGTGGCTGCAAGACCCTCAGTCCAGTCAGGCCTGTGTGGTGTGCGAGGAAGGCTTC
TCCCTGCACCAGAAGAGCTGTGTCCAGCACTGCCCTCCAGGGTTTCGCCCCCAAGTCTCGATACGCACTATAGC
ACCGAGAATGACGTGGAGACCATCCGGGCCAGCGTCTGCGCCCCCTGCCACGCCTCATGTGCCACATGCCAGGGG
CCGGCCCTGACAGACTGCCTCAGCTGCCCCAGCCACGCCTCCTTGGAACCTGTGGAGCAGACTTGCTCCCGGCAA
AGCCAGAGCAGCCGAGAGTCCCCGCCACAGCAGCAGCCACCTCGGCTGCCCCCGAGGTGGAGCGGGGCAACGG
CTGCGGGCAGGGCTGCTGCCCTCACACCTGCCTGAGGTGGTGGCCGGCCTCAGCTGCGCCTTCATCGTGTGGT
TTCTGCTACTGTCTTCTGGTCTCTGAGCTGCGCTCTGGCTTTAGTTTTCGGGGGGTGAAGGTGTACACCATGGAC
CGTGGCCTCATCTCCTACAAGGGGCTGCCCTTGAAGCCTGGCAGGAGGAGTGGCCGTCTGACTCAGAAGAGGAC
GAGGGCCGGGGCGAGAGGACCGCCTTTATCAAAGACCAGAGCGCCCTCTGATGAGCCCACTGCCACCCCTCAA
GCCAATCCCTCCTTGGGCACTTTTTAATTACCAAAGTATTTTTTATCTTGGGACTGGGTTTGGACCCACAGCT
GGGAGGCAAGAGGGGTGGAGACTGCTTCCCATCTACCCCTCGGGCCACCTGGCCACCTGAGGTGGGGCCAGGAC
CAGCTGGGGCGTGGGAGGGCGGTACCCACCCCTCAGCACCCTTCCATGTGGAGAAAGGAGTGAAACCTTTAGG
GCAGCTTGCCCCGGCCCCGGCCCCAGCCAGAGTTCTGCGGAGTGAAGAGGGGCGAGCCCTTGCTTGTGGGATT
CTGACCCAGGCCGAGCTCTTGCCCTTCCCTGTCCCTCTAAAGCAATAATGGTCCCATCCAGGCAGTCGGGGGCT
GGCCTAGGAGATATCTGAGGGAGGAGGCCACCTCTCAAGGGCTTCTGCACCCTCCACCCTGTCCCCAGCTCTG
GTGAGTCTTGGCGGCAGCAGCCATCATAGGAAGGGACCAAGGCAAGGCAGGTGCCCTCCAGGTGTGCACGTGGCAT
GTGGCCTGTGGCCTGTGTCCCATGACCCACCCCTGTGCTCCGTGCCCTCCACCACCACTGGCCACCAGGTGGCGC
AGCCAAGGCCGAAGCTCTGGCTGAACCTGTGCTGGTGTCTGACCAACCTCCCTCTCTTGACCCGCTCTCC
CGTCAGGGCCCAAGTCCCTGTTTTCTGAGCCCGGGCTGCGTGGGCTGTTGGCACTCACAGACCTGGAGCCCTGG
GTGGGTGGTGGGAGGGGCGCTGGCCAGCCGGCCTCTCTGGCCTCCACCCGATGCTGCTTTCCCTGTGGGGA
TCTCAGGGGCTGTTGAGGATATATTTTCACTTTGTGATTATTTCACTTTAGATGCTGATGATTTGTTTTGTAT
TTTTAATGGGGGTAGCAGCTGGACTACCCACGTTCTCACACCCACCGTCCGCCCTGCTCCTCCCTGGCTGCCCTG

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FIGURE 287B

GCCCTGAGGTGTGGGGGCTGCAGCATGTTGCTGAGGAGTGAGGAATAGTTGAGCCCCAAGTCCTGAAGAGGCGGG
CCAGCCAGGCGGGCTCAAGGAAAGGGGTCCCAGTGGGAGGGGCAGGCTGACATCTGTGTTCAAGTGGGGCTCG
CCATGCCGGGGGTTTCATAGGTCACTGGCTCTCCAAGTGCCAGAGGTGGGCAGGTGGTGGCACTGAGCCCCCCAA
CACTGTGCCCTGGTGGAGAAAGCACTGACCTGTCATGCCCCCTCAAACCTCCTCTTCTGACGTGCCTTTTGCAC
CCCTCCCATTAGGACAATCAGTCCCCCTCCCATCTGGGAGTCCCCTTTTCTTTCTACCCTAGCCATTCTGGTAC
CCAGCCATCTGCCCAGGGGTGCCCCCTCCTCTCCCATCCCCCTGCCCTCGTGGCCAGCCGGCTGGTTTTGTAAG
ATGCTGGGTTGGTGCACAGTGATTTTTTCTTGTAATTTAAACAGGCCCAGCATTGCTGGTTCTATTTAATGGAC
ATGAGATAATGTTAGAGGTTTTAAAGTGATTAAACGTGCAGACTATGCAAACCAG

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FIGURE 288

MELRPWLLWVVAATGTLVLLAADAQGQKVFTNTWAVRIPGGPAVANSVARKHGFLNLGQIFGDYYHFWHRGVTKR
SLSPHRPRHSRLQREPQVQWLEQQVAKRRTKRDVYQEPDTPKFPQQWYLSGVTQRDLNVKAAWAQGYTGHGIVVS
ILDDGIEKNHPDLAGNYDPGASFDVNDQDPDPQPRYTQMNDRHGTRCAGEVAAVANNGVCGVG VAYNARIGGVR
MLDGEVTDAVEARSLGLNPNHIHIYSASWGPEDDGKTVDGPARLAEEAFFRGVSQGRGGLGSIFVWASGNGGREH
DSCNCDGYTNSIYTLSSISSATQFGNVPWYSEACSSTLATTYSSGNQNEKQIVTTDLRQKCTESHTGTSASAPLAA
GIIALTLEANKNLTWDRMQHLVVQTSKPAHLNANDWATNGVGRKVSHSYGYGLLDAGAMVALAQNWTTVAPQRKC
IIDILTEPKDIGRLEVRKTVTACLGEPNHITRLEHAQARLTLSYNRRGDLAIHLVSPMGTRSTLLAARPHDYSA
DGFNDWAFMTTHSWDEDPSGEWVLEIENTSEANNYGLTKFTLVLYGTAPEGLPVPPESSGCKTLTSSQACVVCE
EGFSLHQKSCVQHCPPGFAPQVLDTHYSTENDVETIRASVCAPCHASCATCQGPALTDCLSCPSHASLDPVEQTC
SRQSQSSRESPPQQQPPRLPPEVEAGQRLRAGLLPSHLPEVVAGLSCAFIVLVFTVFLVLQLRSGFSFRGVKVY
TMDRGLISYKGLPPEAWQECPDSEEDGRGERTAFIKDQSAL

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FIGURE 289

CTGGTCCCAGACGAGCTGTGAGGGGATTCACTTGTGTGCGGAACCTCCTCGGAACCATGGCGTCCCTTTCCCTT
GCACCTGTTAAACATCTTTAAGGCAGGAGCTGATGAAGAGAGAGCAGAGACAGCTCGTCTGACTTCTTTATTGGT
GCCATCGCCATTGGAGACTTGGTAAAGAGCACCTTGGGACCCAAAGGCATGGACAAAATTCTTCTAAGCAGTGGA
CGAGATGCCCTCTCTTATGGTAACCAATGATGGTGCCACTATTCTAAAAACATTGGTGTTGACAATCCAGCAGCT
AAAGTTTTAGTTGATATGTCAAGGGTTCAAGATGATGAAGTTGGTGATGGCACTACCTCTGTTACCGTTTTAGCA
GCAGAATTATTAAGGGAAGCAGAATCTTTAATTGCAAAAAAGATTATCCACAGACCATCATAGCGGGTTGGAGA
GAAGCCACGAAGGCTGCAAGAGAGGCGCTGTTGAGTTCTGCAGTTGATCATGGTTCCGATGAAGTTAAATCCGT
CAAGATTTAATGAATATTGCGGGCACAACATTATCCTCAAACTTCTTACTCATCACAAGACCCTTTACAAAG
TTAGCTGTAGAAGCAGTTCTCAGACTGAAAGGCTCTGGCAACCTGGAGGCAATTCATATTATCAAGAAGCTAGGA
GGAAGTTTGGCAGATTCTATTAGATGAAGGCTTCTGTTGGATAAAAAAATTGGAGTAAATCAACCAAAACGA
ATTGAAAATGCTAAAAATTCTTATTGCAAATACTGGTATGGATACAGACAAAATAAGATATTTGGTTCCCGGGTA
AGAGTTGACTCTACAGCAAAGGTTGCAGAAATAGAACATGCGGAAAAGGAAAAAATGAAGGAGAAAGTTGAACGT
ATTCTTAAGCATGGAATAAATTGCTTTATTAACAGGCAATTAATTTATAATTATCCTGAACAGCTCTTTGGTGCT
GCTGGTGTCTAGGCTATTGAGCATGCAGATTTTGCAGGTGTGGAACGCCTAGCTCTTGTACAGGTGGTGAAT
GCCCTCTACCTTTGATCACCCAGAACTGGTGAAGCTTGGAAAGTTGCAAACCTATCGAGGAAGTCATGATTGGAGAA
GACAAACTCATTCACTTTTTCTGGGGTTGCCCTTGGTGAGGCTTGTACCATTGTTTTGCGTGGTGCCACTCAACAA
ATTTTAGATGAAGCAGAAAGATCATTGCATGATGCTCTTTGTGTTCTTGCGCAAACTGTAAGGACTCTAGAACA
GTTTATGGAGGAGGCTGTTCTGAGATGTTGATGGCTCATGCTGTGACACAGCTTGCCAATAGAACACCAGGCAAA
GAAGCTGTTGCAATGGAGTCTTATGCTAAAGCACTGAGAATGTTGCCAACCATCATAGCTGACAATGCAGGCTAT
GACAGTGACAGACCTGGTGGCAGAGCTCAGGGCTGCTCAGTGAAAGGCAATACCACTGCTGGATTGGATATGAGG
GAAGGCACCATTGGAGATATGGCTATCCTGGGTATAACAGAAAGTTTTCAAGTGAAGCGACAGGTTCTTCTGAGT
GCAGCTGAAGCAGCAGAGGTGATTCTGCGTGTGGACAACATCATCAAAGCGGCACCCAGGAAACGTGTCCCTGAT
CACCAACCCCTGTTAAGCATTCCCACGTGCTGTGATCTTTGGACCAGTTTCTAGCAAAGTTGTGTTTGAAGATA
CTCTATTAAAGAAGACTGTGGAATCTGTTTATCGGTGCCCATATATCCTTAAGTTGGATATTTAGCTGACCTT
CGCTTTAACATAGGTCTAATTTATTTGCCGTGTCATTTCCATACAAATCAGTTGATTTAAAGGAGTTTCATTTG
CATACTGGGCATTAAAAATAAAATTGAACAATGAAAGGAAAAAAGGAGAAAAA

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FIGURE 290

MASLSLAPVNIFKAGADEERAETARLTSFIGAIAIGDLVKSTLGPKGMDKILLSSGRDASLMVTNDGATILKNIG
VDNPAKVLDMSRVQDDEVGDGTTSTVLAAELLREAESLIAKKIHPQTIIAGWREATKAAREALLSSAVDHGS
DEVKFRQDLMNIAGTTLSSKLLTHHKDHFTKLAVEAVLRLKSGNLEAIIHKKLGGSLADSYLDEGFLLDKKIG
VNQPKRIENAKILIAN TGMDTDKIKIFGSRVRVDSTAKVAEIEHAEKEKMEKVERILKHGINCFINRQLIYNYP
EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTFDHPELVKLGSKLIEEVMIGEDKLIHFSGVALGEACTIVL
RGATQQILDEAERSLHDALCVLAQTVKDSRTVYGGGCSEMLMAHAVTQLANRTPGKEAVAMESYAKALRMLPTII
ADNAGYDSADLVAQLRAAHSEGNTTAGLDMREGTIGMAILGITESFQVKRQVLLSAAEAAEVILRVDNIKAAP
RKRVPDHHPC

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FIGURE 291

GCCTGAGTGAGTCTCTGGCGTCCCAAATTGCCTGTTTTTCTCGCAGGCTCTATTCCGTTGCTGGTTCCGCCACCT
CAGGGGAACGATGGCCATGGAGTCCACAGCCACTGCCGCCGTGCGCCGGACGTGGTTTCTGCCGACAAAATTGA
AGATGTCCTTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGTGAAGCTAAGAACTATT
GGGTTTAGGACAGAAACATCTGGTGATGGGGGATATTCCAGCAGCTGTCAATGCATTCCAGGAAGCAGCTAGTCT
TTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTTCTTTTTCTATGGGAAATCACTTCTGGA
GTTGGCAAGAATGGAGAATGGTGTGTTGGGAAACGCCTTGGAAAGGTGTGCATGTGAAGAGGAAGAAGGAGAAAA
AACAGAAGATGAATCTCTGGTAGAAAATAATGATAACATAGATGAGGAAGCAAGGGAAGAGTTGAGAGAACAGGT
TTATGACGCCATGGGAGAAAAAGAAGCCAAAAAACAGAAGACAAGTCTTTGGCAAAGCCTGAACTGATAA
AGAACAGGACAGTGAAATGGAGAAGGGTGAAGAGAAGATATGGATATAAGTAAATCTGCAGAGGAGCCACAGGA
AAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCAAAAGGAGGAGCAGCACCAGAAGGACC
GAATGAAGCTGAGGTCACTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAAGAAAAATCAGTTTCTGG
AACTGATGTCCAAGAAGAGTGCAGAGAAAAAGGAGGTGAGGAGAAGCAGGGAGAGGTAATTGTGAGCATAGAGGA
GAAGCCAAAAGAAGTTTTAGAAAGCAGCCTGTGGTGACTCTAGAAAAGCAGGGCACTGCAGTGGAGGTAGAAGC
AGAGTCTTTAGACCCGACAGTCAAGCCAGTGGATGTGGGTGGGGACGAGCCAGAGGAGAAGGTAGTTACCTCTGA
AAACGAGGCAGGAAAGGCGGTTCTTGAACAACCTGGTAGGTCAAGAAGTACCACCTGTGAAGAGTACCAGAGGT
GCAAACAGAGGCTGCAGAGGCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAGCCTGGGCAGGAGGCTCC
AGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAGTTGTAGGAGATCAGACTCCTATTGAACCACAGACTTC
TATAGAAAGACTGACAGAAACAAAAGATGGCTCAGGACTAGAGGAGAAGGTGAGGGCAAAGCTGGTTCTTAGTCA
GGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGCAGCTGGAGATGGGGTTGATACCAAGGTAGCCAGGGAGC
TACTGAGAAATCACCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAGAGAGAAGAACAGATGAA
AGAGGGTGAAGAACTGAAGGCTCGGAAGAGGATGATAAAGAAAATGATAAGACTGAAGAAATGCCAAATGATTC
AGTCCTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAGCTTGCCTGGGATATGCT
GGATTTAGCAAAGATCATTTTTAAAAGGCAAGAAACAAAAGAAGCACAGCTTTATGCTGCCCAGGCACATCTTAA
ACTCGGAGAAGTTAGTGTGAATCTGAAAACATATGTGCAAGCTGTGGAGGAGTTCCAGTCCCTGACCTTAACCTGCA
GGAACAGTACCTGGAAGCCACGACCGTCTGCTTGAGAGACCCACTACCAGCTGGGCTTGGCTTATGGGTACAA
CTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAATCTATTGAAGTCATTGAGAACAGAATGGCTGTACTAAA
CGAGCAGGTGAAGGAGGCTGAAGGATCGTCTGAATACAAGAAAGAAATTGAGGAACATAAGGAAGTCTGAAAGCTAC
AATTAGAGAGAAGATAGAAGATGCAAAGGAGTCTCAGCGTAGTGGGAATGTAGCTGAACTGGCTCTGAAAGCTAC
TCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTTCAGTCTCCATGATTGCCAGTAGAAA
GCCAACAGACGGTGCTTCTCATCAAATTGTGTGACTGATATTTCCACCTTGTGAGAAAGAAGAGGAAACCAGA
GGAAGAGAGTCCCCGGAAGATGATGCAAAGAAAGCCAAACAGAGCCGGAGGTGAACGGAGGCACTGGGGATGC
TGTCCCGAGTGGAAATGAAGTTTCGGAAAACATGGAGGAGGAGGCTGAGAATCAGCTGAAACGCGGAGCAGCAGT
GGAGGGGACACTGGAGGCTGAGCTACAGTTGAAAGCACTGCATGTTAAGAGGGGGCACAGCCTCCTCCCAAGGG
AAAGTGTTTTTGATATAATGTATTTTTTCACTTTTGGAGGATCTTTTTTGATAAATTCAATAAAGATTGTAAG
CAAAAAA

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FIGURE 292

MAMESTATAA VAADVVSADKIEDVPAPSTSADKVESLDVDSEAKLLGLGQKHLVMGDIPA AVNAFQEAASLLGK
KYGETANECGEAFFFYGKSILLELARMENGVLGNALEGVHVEEEEGEKTEDESLVENNDNIDEEAREELREQVYDA
MGEKEEAKKTEDKSLAKPETDKEQDSEMEKGGREDMDISKSAEEPQEKVDLTLDWLTETSEEAKGGAAPEGPNEA
EVTSGKPEQEVDPDAEEEEKSVSGTDVQEECREKGGQEKQGEVIVSIEEKPKEVSEEQPVVTLEKQGTAVEVEAESL
DPTVKPVDVGGDEPEEKVVTSENEAGKAVLEQLVGQEVPPAEESPEVQTEAAEASAVEAGSEVSEKPGQEAPVLP
KDGAVNGPSVVG DQTP IEPQTSIERLTETKDGSGLEEKVRACLVP SQEETKLSVEESEAAAGDGVDTKVAQGATEK
SPEDKVQIAANEETQEREEQMKEGEETEGSEEDDKENDKTEEMPND SVLENKSLQENEEEEIGNLELAWDMLDLA
KIIFKRQETKEAQLYAAQHLKLGEVSVESENYVQAVEEFQSCINLQEQYLEAHDRLLAETHYQLGLAYGYNSQY
DEAVAQFSKSIEVIENRMAVLNEQVKEAGSSEYKKEIEELKELLPEIREKIEDAKESQSRSGNVAELALKATLVE
SSTSGFTPGGGGSSVSMIASRKPTDGASSSNCVTDISHLVRRKKRKP EEESPRKDDAKKAKQEPEVNGGSGDAVPS
GNEVSENMEEEAENQLKRGA AVEGTLEAGATVESTAC

AAA

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FIGURE 294

MAGPAWISKVSRLLGAFHNPKQVTRGFTGGVQTVTLIPGDGIGPEISAAVMKIFDAAKAPIQWEERNVTAIQGP
GKWMIPSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLLLRKTFDLYANVRPCVSIIEGYKTPYTDVNIVTIRENTE
GEYSGIEHVIVDGVVQSIKCLITEGASKRIAEFAFEYARNNHRSNVTAVHKANIMRMSDGLFLQKCREVAESCKDI
KFNEMYLDIVCLNMVQDPSQFDVLMPLYGDIILSDLCAGLIGGLGVTPSGNIGANGVAIFESVHGTAPEIAGKD
MANPTALLLSAVMMLRHMGLFDHAARIEAACFATIKDGKSLTKDLGGNAKCSDFTEEICRRVKDLD

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FIGURE 295

GC GCGCCTTCTCCAGTCCGCGGTGCCATGGCCCCCGCCGCTCTGTTCCGCGCTGCTGCTCTTTCGTAGGCGGAG
TCGCCGAGTTCGATCCGAGAGACTGAGGTCATCGACCCCCAGGACCTCCTAGAAGGCCGATACTTCTCCGGAGCCC
TACCAGACGATGAGGATGTAGTGGGGCCCCGGGCAGGAATCTGATGACTTTGAGCTGTCTGGCTCTGGAGATCTGG
ATGACTTGGAAGACTCCATGATCGGCCCTGAAGTTGTCCATCCCTTGGTGCCTCTAGATAACCATATCCCTGAGA
GGGCAGGGTCTGGGAGCCAAGTCCCCACCGAACCCAAGAACTAGAGGAGAATGAGGTTATCCCCAAGAGAATCT
CACCCGTTGAAGAGAGTGAGGATGTGTCCAACAAGGTGTCAATGTCCAGCACTGTGCAGGGCAGCAACATCTTTG
AGAGAACGGAGGTCTTGGCAGCTCTGATTGTGGGTGGCATCGTGGGCATCCTCTTTGCCGCTCTTCTGATCCTAC
TGCTCATGTACCGTATGAAGAAGAAGGATGAAGGCAGCTATGACCTGGGCAAGAAACCCATCTACAAGAAAGCCC
CCACCAATGAGTTCTACGCGTCAAGCTTGCTTGTGGGCACTGGCTTGGACTTTAGCGGGGAGGGAAGCCAGGGGA
TTTTGAAGGGTGGACATTAGGGTAGGGTGAGGTCAACCTAATACTGACTTGTGAGTATCTCCAGCTCTGATTACC
TTTGAAGTGTTCAGAAGAGACATTGTCTTCTACTGTTCTGCCAGGTTCTTCTTGAGCTTTGGGCCCTAGTTGCC
TGGCAGAAAAATGGATTCAACTTGGCCTTTCTGAAGGCAAGACTGGGATTGGATCACTTCTTAACTTCCAGTTA
AGAATCTAGGTCCGCCCTCAAGCCCATACTGACCATGCCTCATCCAGAGCTCCTCTGAAGCCAGGGGGCTAACGG
ATGTTGTGTGGAGTCTTGGCTGGAGGTCTCCCCAGTGGCCTTCTCCTTCTTTCACAGCCGGTCTCTCTGC
CAGGAAATGGGGGAAGGAAGTGAACACCTGCACCTTGAGATGTTTCTGTAAATGGGTACTTGTGATCACACTA
CGGGAATCTCTGTGGTATATACCTGGGGCCATTCTAGGCTCTTTCAAGTGACTTTTGGAAATCAACCTTTTTAT
TTGGGGGGGAGGATGGGGAAAAGAGCTGAGAGTTTATGCTGAAATGGATTTATAGAATATTTGTAAATCTATTTT
TAGTGTGTTTTCGTTTTTTTTAACTGTTTCACTTCTTGTGTCAGAGTGATATCTCTGCCTGGGCAAGAGTGTGGAG
GTGCCGAGGTGTCTTCACTCTCTGCACATTTCCACAGCACCTGCTAAGTTTGTATTTAATGGTTTTTGTGTTTTG
TTTTTGTGTTTTCTTGAATGAGAGAAGAGCCGAGAGATGATTTTATTAAATTTTTTTTTTTTTTTTTTTTTT
TACTATTTATAGCTTTAGATAGGGCCTCCCTTCCCTCTTCTTTCTTGTCTCTTTCATTAAACCCCTTCCCCA
GTTTTTTTTTTATACTTTAAACCCCGCTCCTCATGGCCTTGGCCCTTCTGAAGCTGCTTCTCTTATAAAATAG
CTTTTGCCGAAACATAGTTTTTTTTTAGCAGATCCCAAATATAATGAAGGGGATGGTGGGATATTTGTGCTGT
GTTCTTATAATATATTATTCTTCTTGGTTCTAGAAAAATAGATAAATATATTTTTTTCAGGAAATAGTGTG
GTGTTTCCAGTTTGATGTTGCTGGGTGGTTGAGTGAGTGAATTTTCATGTGGCTGGGTGGGTTTTTGCCTTTTTC
TCTTGCCCTGTTCTGCTGGTGCCTTCTGATGGGGCTGGAATAGTTGAGGTGGATGGTTCTACCCCTTCTGCCTTCTG
TTTGGGACCCAGCTGGTGTTCTTTGGTTTGCTTTCTTCAGGCTCTAGGGCTGTGCTATCCAATACAGTAACCACA
TGCGGCTGTTTTAAAGTTAAGCCAATAAAATCACATAAGATTAAAAATTCCTTCTCAGTTGCACTAACCCAGTT
TCTAGAGGCGTCACTGTATGTAGTTCATGGCTACTGTACTGACAGCGAGAGCATGTCCATCTGTTGGACAGCACT
ATTCTAGAGAACTAACTGGCTTAACGAGTCACAGCCTCAGCTGTGCTGGGACGACCCCTGTCTCCCTGGGTAGG
GGGGGGGGAATGGGGGAGGGCTGATGAGGCCCCAGCTGGGGCCTGTTGTCTGGGACCCCTCCCTCTCCTGAGAGGG
GAGGCCTGGTGGCTTAGCCTGGGCAGGTGCTGTCTCCTGACCCAGTGGCTGCGGTGAGGGGAACCCCTC
CCTGCTGCACCACTGGCCATTAGCTCCCGTCACCACTGCAACCCAGGGTCCCAGCTGGCTGGGTCTCTTCTGC
CCCCAGTGCCCTTCCCTTGGGCTGTGTTGGAGTGAGCACCTCCTCTGTAGGCACCTCTCACACTGTTGTCTGTT
ACTGATTTTTTTTGATAAAAAGATAATAAACCTGGTACTTTCTAAAAA

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FIGURE 296

MAPARLFALLLLFVGGVAESIRETEVIDPQDLLEGYFSGALPDDEDVVGPGQESDDFELSGSGDLDDLED SMIG
PEVVHPLVPLDNHUPERAGSGSQVPTPKKLEENEVIPKRISPVEESEDVSNKVSMSSTVQGSNIFERTEVLAAL
IVGGIVGILFAVFLILLMYRMKKKDEGSYDLGKKPIYKKAPTNEFYA

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FIGURE 297

CACTGCGCTTGCGCGGGTTGAGGGCGGTGGCTCAGTCTCCTGGAAAGGACCGTCCACCCCTCCGCGCTGGCGGTG
TGGACCGGAACTCAGCGGAGAAACGCGATTGAGAAATGGAAAAGAAAATGAAATAAATCAGCAGTTATGAGGCA
GAGCCTAAGAGAACTATGGCAACATCAGGTGACTGTCCCAGAAGTGAATCGCAGGGAGAAGAGCCTGCTGAGTGC
AGTGAGGCGGGTCTCCTGCAGGAGGGAGTACAGCCAGAGGAGTTTGTGGCCATCGCGGACTACGCTGCCACCGAT
GAGACCCAGCTCAGTTTTTTGAGAGGAGAAAAAATTCTTATCCTGAGACAAACCACTGCAGATTGGTGGTGGGGT
GAGCGTGCGGGCTGCTGTGGGTACATTCCGGCAAACCATGTGGGGAAGCACGTGGATGAGTACGACCCCGAGGAC
ACGTGGCAGGATGAAGAGTACTTCGGCAGCTATGGAACCTCTGAAACTCCACTTGGAGATGTTGGCAGACCAGCCA
CGAACAACTAAATACCACAGTGTATCCTGCAGAATAAAGAATCCCTGACGGATAAAGTCATCCTGGACGTGGGC
TGTGGGACTGGGATCATCAGTCTCTTCTGTGCACACTATGCGCGGCCTAGAGCGGTGTACGCGGTGGAGGCCAGT
GAGATGGCACAGCACACGGGGCAGCTGGTCCTGCAGAACGGCTTTGCTGACATCATCACCGTGTACCAGCAGAAG
GTGGAGGATGTGGTGCTGCCCGAGAAGGTGGACGTGTGGTGTCTGAGTGGATGGGGACCTGCCTGCTGTTTGAG
TTCATGATCGAGTCCATCCTGTATGCCCGGGATGCCTGGCTGAAGGAGGACGGGGTCATTTGGCCACCATTGGCT
GCGTTGCACCTTGTGCCCTGCAGTGTGATAGGATTATCGTAGCCAAGGTGCTCTTCTGGGACAACCGGTACGAG
TTCAACCTCAGCGCTCTGAAATCTTTAGCAGTTAAGGAGTTTTTTTCAAAGCCCAAGTATAACCACATTTTGAAA
CCAGAAGACTGTCTCTCTGAACCGTGCACTATATTGCAGTTGGACATGAGAACCGTGCAAATTTCTGATCTAGAG
ACCCGTAGGGGCGAGCTGCGCTTCGACATCAGGAAGGCGGGGACCCCTGCACGGCTTCACGGCTTGGTTTAGCGTC
CACTTCCAGAGCCTGCAGGAGGGGCAGCCGCCGCGAGGTGCTCAGCACGGGGCCCTTCCACCCACACACACTGG
AAGCAGACGCTGTTTCATGATGGACGACCCAGTCCCTGTCCATACAGGAGACGTGGTCACGGGTTTCAGTTGTGTTG
CAGAGAAACCCAGTGTGGAGAAGGCACATGTCTGTGGCTCTGAGCTGGGCTGTCACTTCCAGACAAGACCCACA
TCTCAAAAAGTTGGAGAAAAAGTCTTCCCCATCTGGAGATGACAGTTGATGCTTTATTTGGAAAGCAGTGTGCAT
ATCTTGAGGGGTGATGAACACAAGCAAACCAAGTTGCACCTGGCTTCTGCACACTCCTGCGAAAGTCGGTGAACA
TTCACCTCACATTGACCCCTCCCTAGCCTGGCAGGTGACGTGAGGGTCCTTCACAGACAAACACGCTTGGGCTCG
GCAGGAGCTGCCGTGGCCACCCCGCTGCCAGTGTCTGCCCTCTAGAAGTAGGCTGTGTTCCAGGTGTTACAC
CGTGGTGCCACAGTGCCGACCCGTGGCTGGGTGGGAGCTCCATGTTCTTAAGCTAGGTCTAGGTCTACACTCCT
AGGACGCACGCATATCAGCCCGTGTACCCTGTGACAGTGAAGTGTCCCCACCTCCTGTGTTAGTGGTGCCCTTACT
GCCGTGCTCATCCACTCGTGTGGGACGTAGGATTGCACAGGGCTGTGCCAGTGGCGTGTAGGGAACACTGCCCT
GGCTCAGCGTGCGAGCTAAGGTGGCGATGTATGCGATGGGACTCTGCATGGGATAGTACAGTTGTGTAGACGTCT
TCCAAATAAATTATGTGTTGGTGCCATCGCACATGCTCAATAAATATTTTAAATGAGTGAAAAA

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FIGURE 298

MATSGDCPRSESQGEEPAECSEAGLLQEGVQPEEFVAIADYAATDETQLSFLRGEKILILRQTTADWWGERAGC
CGYIPANHVKGKHVDEYDPEDTWQDEEYFGSYGTLKLHLEMLADQPRTTKYHSVILQNKESLTDKVILDVGC GTGI
ISLFCAYARPRAVYAVEASEMAQHTGQLVLQNGFADIITVYQQKVEDVVLPEKVDVLVSEWMGTCLLFEFMIES
ILYARDAWLKEDGVIWPTMAALHLVPC SADRIIVAKVLFWDNAYEFNLSALKSLAVKEFFSKPKYNHILKPEDCL
SEPCTILQLDMRTVQISDLETLRGELRFDIRKAGTLHGFTAWFSVHFQSLQEGQPPQVLSTGPFHPTTHWKQTLF
MMDDPVPVHTGDVV TGSVVLQRNPVWRRHMSVALSWAVTSRQDPTSQKVGEKVFP IWR

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FIGURE 299

AATTCCGCGGAATCATCGGAATCCTTCACCATGGCATCCAGCCCGGCCAGCGTCGGCGAGGCAATGATCCTCTC
ACCTCCAGCCCTGGCCGAAGCTCCCGGCGTACTGATGCCCTCACCTCCAGCCCTGGCCGTGACCTTCCACCATT
GAGGATGAGTCCGAGGGGCTCCTAGGCACAGAGGGGCCCTGGAGGAAGAAGAGGATGGAGAGGAGCTCATTGGA
GATGGCATGGAAAGGACTACCGCGCCATCCCAGAGCTGGACGCCATGAGGCCGAGGGACTGGCTCTGGATGAT
GAGGACGTAGAGGAGCTGACGGCCAGTGAAGGGAGGCAGCAGACGGGCCATGCGGCACGGTGACCGGGAGCTGG
CCGGGGCTGGCGCATGCGCCGTGGGCTCCTGTATGACAGCGATGAGGAGGACGAGGAGCGCCCTGCCCGCAAGC
GCCGCCAGTGGAGCCGGCACGGAGGACGGCGAGGAGGACGAGCAGATGATTGAGAGCATCGAGAACCTGGAGGAT
CTCAAAGGCCACTCTGTGCGGAGTGGGTGAGCATGGCGGGCCCCGGCTGGAGATCCACCACCGCTTCAAGAAC
TTCTGCGCACTCACGTGACAGCCACGGCCACAACGTCTTCAAGGAGCGCATCAGCGACATGTGCAAAGAGAAC
CGTGAGAGCCTGGTGGTGAATATGAGGACTTGGCAGCCAGGGAGCAGTGTGCTGACCTTCTGCTGAGGCA
CCGGCGGAGCTGCTGAGATCTTTGATGAGGCTGCCCTGGAGGTGGTACTGGCCATGTACCCCAAGTACGACCGC
ATCACCAACCACATCCATGTCCGATCTCCACCTGCCTCTGGTGGAGGAGCTGCGCTCGCTGAGGACGCTGCAT
CTGAACCAGCTGATCCGACACAGTGGGGTGGTGACCAGCTGCACTGGCGTCTGCCCGAGCTCAGCATGGTCAAG
TACAACGTCAACAAGTGCAATTCGTCTGGGTCTTTCTGCCAGTCCAGAACAGGAGGTGAAACCAGGCTCC
TGCTGTAGTGCCAGTGGCGCGGCCCTTTGAGGTCAACATGGAGGAGACCATCTATCAGAACTACCAGCGTATC
CGAATCCAGGAGAGTCCAGGCAAAGTGGCGGCTCGCGGCTGCCCGCTCCAAGGACGCCATTCTCTCGCAGAT
CTGGTGGACAGCTGCAACGACAGGAGACGAGATAGAGTGAAGTGGCATCTATCACAACAATATGATGGCTCCCTC
AACACTGCCAATGGCTTCCCTGTCTTTGCCACTGTCTCTAGCCAACCACGTGGCCAAAGAGGACAACAAGGTT
GCTGTAGGGGAATGACCGATGAAGATGTGAAGATGATCACTAGCCTCTCCAAGGATCAGCAGATCGGAGAGAAG
ATCTTTGCCAGCATTGCTCCTTCCATCTATGGTCAAGAGACATCAAGAGAGGCCCTGCTCTGGCCCTGTTCCGA
GGGGAGCCCAAAACCCAGGTGGCAAGCACAAGGTACGTGGTGATATCAACGTGCTCTTGTGCGGAGACCCTGGC
ACAGCGAAGTCGAGTTTCTCAAGTATATTGAGAAAGTTCAGCCGAGCCATCTTACCAGTGGCCAGGGGGCG
TCGGCTGTGGCGGTACGGCGTATGTCCAGCGCACCTGTGACGAGGAGTGGACCTTGGAGGCTGGGGCCCTG
GTTCTGGCTGACCGAGGAGTGTGTCTCATTGATGAATTTGACAAGATGAATGACCAGGACAGAACCAGCATCCAT
GAGGCCATGGAGCAACAGAGCATCTCCATCTCGAAGGTGGCATCGTCACCTCCCTGCAGGCTCGCTGCACGGTC
ATTGCTGCCGCCAACCCCATAGGAGGGCGCTACGACCCCTCGCTGACTTTCTCTGAGAAGCTGGACCTCACAGAG
CCCATCATCTCACGCTTTGACATCTGTGTGGTGGTGGAGGACACCGTGGACCCAGTCCAGGACGAGATGCTGGCC
CGCTTCGTGGTGGGACGCCAGTCAGACACCACCCAGCAACAAGGAGGAGGAGGGGCTGGCCAATGGCAGCGCT
GCTGAGCCCGCCATGCCAACACGTATGGCGTGGAGCCCTGCCCGAGGAGTCTGAAGAAGTACATCATCTAC
GCCAAGGAGAGGGTCCACCCGAAGCTCAACCAGATGGACCAGGACAAGGTGGCCAAGATGTACAGTGACCTGAGG
AAAGAATCTATGGCGACAGGCAGCATCCCCATTACGGTGGCGCACATCGAGTCCATGAGTCATGGCGGAGGCCCCA
CGCGCGCATCCATCTGCGGGACTATGTGATCGAAGACGACGTCAACATGGCCATCCGCGTGTATGCTGGAGAGCTT
CATAGACACACAGAAGTTCAGCGTCATCGCAGCATGCGCAAGACTTTTGCCCGTACCTTTTATTCGGCGGTGAC
AACAATGAGCTGTTGCTCTTCACTGAAGCAGTTAGTGGCAGAGCAGGTGACATATCAGCGCAACCGCTTTGGG
GCCCAGCAGGACACTATTGAGGTCCCTGAGAAGGACTTGGTGGATAAGGCTCGTCAGATCAACATCCACAACCTC
TCTGCATTTTATGACAGTGAGCTCTTCAGGATGAACAAGTTCAGCCACGACCTGAAAAGGAAAATGATCCTGCAG
CAGTTCTGAGGCCCTATGCCATCCATAAGGATTCCTTGGGATTCTGGTTTGGGGTGGTCAGTGCCCTCTGTGCTT
TATGGACACAAAACAGAGCACTTGATGAACCTGGGGTACTAGGGTCAGGGCTTATAGCAGGATGCTGGGTGCA
CCTGGCATGACTGTTTGTCTTCCAAGCCTGCTTGTGCTTCTACCTTTGGGTGGGATGCCTTGCCAGTGTGTC
TTACTTGGTTGCTGAACATCTTGCCACCTCCGAGTGCTTTGTCTCCACTCAGTACCTTGGATCAGAGCTGCTGAG
TTCAGGATGCCTGCGTGTGGTTAGGTGTTAGCCTTCTTACATGGATGTCAGGAGAGCTGCTGCCCTCTTGGCGT
GAGTTGCGTATTCAGGCTGCTTTGCTCGCTTTGGCCAGAGAGCTGGTTGAAGATGTTTGAATCGTTTTAGTC
TCCTGCAGGTTTCTGTGCCCTGTGGTGAAGAGGCACGACAGTGCCAGCGCAGCGTTCTGGGCTCCTCAGTCGC
AGGGGTGGGATGTGAGTCATCGGATTATCCACTCGCCACAGTTATCAGCTGCCATTGCTCCCTGTCTGTTCCC
CACTCTCTTATTGTGCATTGCGTTTGGTTTCTGTAGTTTTAATTTTAAATAAAGTTGAATAAAATATAAAAAA
AAAA

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FIGURE 300

MASSPAQRRRGNDPLTSSPGRSSRRTDALTSSPGRDLPPFEDESEGLLGTEGPLEEEEDGEELIGDGMERDYRAI
PELDAYEAEGALDDEDVEELTASRREAADGPCGTVTGSWPGLGACAVGSCMTAMRRTRSALPASAASGAGTEDG
EEDEQMIESIENLEDLKGHSVREWVSMAGPRLEIHHRFKNFLRTHVDSHGHNVFKERISDMCKENRESLVVNYED
LAAREHVLAYFLPEAPAELLQIFDEAALEVVLAMYPKYDRITNHIHVRI SHLPLVEELRSLRQLHLNQLIRTSGV
VTSTGVLPLQLSMVKYCNKCNFVLGPFQCSQSQEVKPGSCPECQSAGPFEVNMEETIYQNYQRIRIQESPGKVA
ARRLPRSKDAILLADLVDSNAGDEIELTGIYHNNYDGS LNTANGFPVFATVILANHVAKKDNKVAVGELTDEDV
KMITSLSKDQQIGEKIFASIAPSIYGHEDIKRGPALALFGGEPKNPGGKHKVRGBDINVLLCGDPGTAKSQFLKYI
EKVSSRAIFTTGQASAVAVTAYVQRHPVSREWLEAGALVLADRGVCLIDEFDKMNDQDRTSIEHEAMEQQSISI
SKAGIVTSLQARCTVIAAANPIGGRYDPSLTFSENVDLTEPIISRFDILCVVRDTPVQDEMLARFVVGSHVRH
HPSNKEEEGLANGSAAEPAMPNTYGVPELPQEV LKYYIIYAKERVHPKLNQMDQDKVAKMYSDLRKESMATGSIP
ITVRHIESMSHGGGPRAHPSAGLCDRRRRQHGHPRDAGELHRHTEVQRHRSMRKTFARYLSFRDRDNNELLF ILK
QLVAEQVTYQRNRF GAQODTIEVPEKDLVDKARQINIHNL SAFYDSELF RMNKF SHDLKRKMILQQF

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FIGURE 301

GAGCTGCGAAAGGGCGGGAAAGGCAGTTGGAGAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAG
GCGGCGGCGGCCTCGGCTGAAGAAAGAAGGTGGGAGCGGAGAGCGCAGGCGTGAAATCTTCCCAAGGCTGCAGAC
ACCGACGGATTTGCTTTGGGAGCCAGAGTAGCTGCCGCCACCAGAGTCCGGAGCCATGAGCGGGTTTAATTTTGG
AGGCACTGGGGCCCCCTACAGGCGGGTTTACGCTTTGGCACTGCAAAGACGGCAACAACCACACCTGTACAGGGTT
TTCTTTCTCCACCTCTGGCACTGGAGGGTTTAATTTTGGGGCTCCCTTCCAACCAGCCACAAGTACCCCTTCCAC
CGGCCTGTCTCACTTGGCACCAGACTCCGGCCACACAGACGACAGGCTTCACTTTTGGAACAGCGACTCTTGC
TTCGGGGGGAAGTGGATTTCTTTGGGGATCGGTGCTTCAAAGCTCAACTTGAGCAACACAGCTGCCACCCAGC
CATGGCAAACCCAGCGGCTTTGGGCTGGGCAGCAGCAACCTCACTAATGCCATATCGAGCACCCTACCTCCAG
CCAGGGCAGCAGCACCACCGGCTTTGTGTTTGGCCCTCCACCACCTCTGTGGCTCCAGCTACCACATCTGGAGG
CTTCTCAITCACTGGTGAAGCAGGCCCCAACCTCCGGTTTCAACATTGGCTCAGCAGGGAATTAGCCAGCC
CACGGCACCTGCCACGTTGCCCTTCACTCCGGCCAGCCAGCAGCCACCACAGCAGGTGCCACACAGCCAGCTGC
TCCCACACCCACAGCCACCATCACCAGTACTGGGCCAGCCTCTTTGCGTCAATAGCAACTGTCTCAACCTCATC
TGCCACCACTGGACTCTCCCTCTGTACCCCTGTGACCACAGCGGGCGCCCCACTGTGGGACACAGGGCTTCAG
CTTAAAGGCACCTGGAGCAGCTTCCGGCACCTCCACAACAACATCCACCGCTGCCACCGCCACCGCCACCACAC
CACCAGCAGCAGCACCACCGGCTTTGCCTTGAATTTAAAACCACTGGCGCCAGCCGGGATCCCCAGCAATACAGC
AGCTGCCGTGACCGCTCCACCTGGCCCTGGCGCAGCTGCAGGGGCGGCTGCCAGCTCCGCCATGACCTACGCGCA
GCTGGAGAGCCTGATCAACAAATGGAGCCTGGAGCTAGAGGACCAGGAGCGGCACTTCTCCAGCAGGCCACCCA
GGTCAACGCCTGGGACCGCAGCTGATCGAGAATGGAGAAAAGATCACCAGCCTGCACCGCGAGGTGGAGAAGGT
GAAGCTGGACCAGAAGAGGCTGGACCAGGAGCTCGACTTCATCCTGTCCCAGCAGAAGGAGCTGGAAGACCTGCT
GAGCCCACTGGAGGAGTTGGTCAAGGAGCAGAGCGGGACCATCTACCTGCAGCACGCGGATGAGGAGCGTGAGAA
AACCTACAAGCTGGCTGAGAACATCGACGCACAGCTCAAGCGCATGGCCAGGATCTCAAGGACATCATCGAGCA
CCTGAACACGTCCGGGGCCCCCGCCGACACCAGTGACCCACTGCAGCAGATCTGCAAGATCCTCAATGCGCACAT
GGACTCACTGCAGTGGATCGACCAGAACTCGGCCCTGTGCAGAGGAAGGTGGAGGAGGTACCAAGGTGTGCGA
GGGCGGCGCAAGGAGCAGGAGCGCAGCTTCCGGATCACCTTTGACTGAGCGACAGCAGCCCTGGGGCCCCGAGG
TCCCTAGGGAGTTTCATGAGGGGAATGCGCCCTGTTGTCTGTAGTTTGGGGTTGTGGCAAGATACTTGTGTTTGT
TTTCTTTCTTTACATGACTGCCCTTGACATGATCGCTGTGTGCTTTTGCCTTTTTCATTTAGGAGGGTATTCTG
GGCCTTCTGCCCAGGCAGCAGCCTCATGGGTGTGGCTTCTGTGGCTTTTATTGAGTATCTTTGGCCCCCTTTTCA
CCTACTGCGACCACCCACCTCATCTGGCTCAGCCTGGTGATGGAGAAGTGCTGATGGTCTTGGTCCCAGCCAGG
GTCGTGGGGGCGAGCCACTCTCTCAAAGCATAGTCATGGGTGTGATGAAAAATACCAATGTAAAGAACTCC
AAGTCAGGGCGCAGTGGCTCACCCCTGTAATCTCAGCACTTTGGGTGGCCAAAGCGGGCAGATGACTTGAGGTCA
GGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGTCAGGTGTGGT
GGACGCTGTGATCTCAATCTCAGCTACTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCCAGGAGGTGTTGCA
GTGAACCAAGATCACACCACTGCACTCCAGCCTAGGCAACAGAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAG
AACTCCCAGGAGACAGCAGCCTAGTTTTCGAGTGTGAGCTTGTGCTTGTGAAGCTAACCATGCTAACCACCAA
GGCAAAGCAGCAGAGTGTGAATAGAACAGAGCGGGATCAAGAAATTCACAGAAGACAGGTGAGTGGGGCCTG
CACACACAGGGTGTGAGGAACACAGATGGGCGCCGAGAGGCTGCCCTTTTGCCTGGCCAGGCTCACCCAC
CTTGGGCTCACCTCTCTAGGAAGCCTTCCAGCTACCCGAAGCTCAGGTGGCCTTCTTGCAGGTCCCCGTAGC
ACCCTGAGCCTGTACCTTGGGTGGCACTTGTTATGCTATCCTGTGCTAGCCGTTTGTGCTCGTCTCGCTGTAG
ATTGTGAGTTCCCATGGGCAGAGACCCACTGTGCTTCCCCGTTGTCCCCAGCCCGGTCCCTGTACATTTGTTA
AATGAAGAACAATGAAGCCAGTGTAACGTAGTCCACAGAAATAGCCACAGCTTCCAGTGGTGGCCGTAGACT
TGGCTCGGAACCTAGTGGCACCAGAGTAAGTCTAGTCAAGTAAATCCACTGTGTGTGAAGGCAGAAGC
TAGCGGTTGTATCCCAAGCATCTTTGTATTTGTCTTTATACTTTGCTGAATTCTCTGAAATACCTATTACTGTA
TGTGGCTTTTCTAAATAAATGTATTGTGAACTAAAAAAAAAAAAAAAAA

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FIGURE 302

MSGFNFGGTGAPTGGFTFGTAKTATTTTPATGFSFSTSGTGGFNFGAPFQPATSTPSTGLFSLATQTPATQTTGFT
FGIATLASGGTGFSGLGIGASKLNLNLSNTAATPAMANPSGFLGSSNLTAISSTVTSSQGTAPTGFVFGPSTTSVA
PATTSGGFSFTGGSTAQPSGFNIGSAGNSAQPTAPATLPFTPATPAATTAGATQPAAPTPTATITSTGPSLFAI
ATAPTSSATTGLSLCTPVTTAGAPTAGTQGFSLKAPGAASGTSTTTSTAATATATTTTSSSTTGFAIPLKPLAPA
GIPSNTAAAVTAPPGPGAAAGAAASSAMTYAQLESINKWSLELEDQERHFLQQATQVNAWDRTLIENGEKITSL
HREVEKVKLDQKRLDQELDFILSQQKELEDLLSPLEELVKEQSGTIYLQHADEEREKTYKLAENIDAQLKRMAQD
LKDIIEHLNTSGAPADTSDPLQQICKILNAHMDSLQWIDQNSALLQRKVEEVTKVCEGRRKEQERSFRITFD

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FIGURE 303

CGCAGGGACCGTGCTCCGCCGCTCTCCGCCGCATCTTCCACCCTCGCCGCCGCCGCGAGCTCCCCGCGCTCGTGCCA
CCGCCGCCGCGTCCACCCTCAGCGCCACCGCC**ATC**CGGGAGATCGTGCACCTGCAGGCCGGCCAGTGCGGCAACC
AGATCGGGGGCCAAGTTTTGGGAGGTTATCAGTGACGAACATGGCATCGACCCACAGGCACATACCATGGGGACA
GTGACCTGCAACTGGAGAGGATCAACGTGTACTACAACGAGGCCACAGGAGGAAATTATGTCCCCAGAGCGGTGC
TGGTGGACCTGGAACCCGGCACCATGGACTCTGTCCGTTCTGGCCCCCTTCGGTCAGATCTTTCGGCCGGACAAC
TCGTGTTTTGGCCAATCCGGAGCCGGCAACAACCTGGGCAAAGGGGCACTACACGGAGGGCGCAGAGCTGGTGGACG
CTGTCTTGGACGTAGTCCGGAAGGAGGCCGAGAGCTGCGACTGCCCTTCAGGGCTTCCAGCTGACCCACTCGCTGG
GGGGTGGCACGGGGTCCGGAATGGGCACGCTGCTCATCAGTAAGATCCGCGAGGAGTTCAGACCCGCATCATGA
ACACCTTCAGCGTGGTGCCCTCGCCCAAAGTGTGAGACACGGTGGTGGAGCCCTACAACGCCACGCTGTCTGTGC
ACCAGCTGGTGGAGAATACGGATGAGACCTACTGCATCGACAACGAGGCACTCTACGACATCTGTTTCCGCACCC
TCAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTGTCCGCCACCATGAGCGGGGTACCACTGCC
TGCGCTTCCCGGGCCAGCTGAACGCCGACCTGCGCAAGCTGGCCGTCACATGGTTCCCTTCTCGCTGCACT
TCTTCATGCCCGGCTTCGCACCCCTGACCAGCCGGGGCAGCCAGCAGTACCGGGCCCTGACGGTGCCCGAGCTCA
CCCAGCAGATGTTTCGATGCCAAGAACATGATGGCGGCGTGCAGCCCGCGCCACGGCCGCTACCTGACCGTGGCCG
CCGTGTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGAGCGTGCAGAGCAAGAACAGCAGCT
ACTTCGTGGAGTGGATCCCCAACACGTGAAGACGGCCGTGTGCGACATCCCGCCCCGCGGCTGAAGATGGCCG
CGACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCC
GGCGCAAGGCCCTTCTTGACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACA
TGAATGACCTGGTATCTGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAGGGCGAGTTCGAGGAGGAGCGG
AGGAGGAGGTGGCC**TAG**GCTGCTCCCATCGCTTCCACCTGTCCCTCGAGGCTTCTGACCTTTGATCCGCTAGG
CCCCCATCTCTGAACCTAGAGCCCCGCTTCCCTCCAAGGCTGACTCCCCGCTGACCCTAACAATACCTTTGG
AGCTCGCTTTACCTCTGGCTACTTCATCTCCGACCCTGGCTCCCCTTTGAGCCCTAATTTATCTTTAACCCCTT
GAGCTCTTCCAACCTTGACATTCCAGGAGGAGCCCCGCTTCACCCCTTCTGACTCTGGAAACCGCACCTTTAAC
TTTGACAGACCTTCCTTACCCCTGACTTCTGCTTACCTTTGACCTCTGCCCCCATGAATCCCATTTTACCTCT
AGACCTATAAGTTCTGGTTTATGTTTGACCCCTCCCTCTGAGCTGCACTTCACCGCTGACCTGCCTCACCTTTA
ACCCCCACCTGAGCCCCAGCTCCTACCTCTGACCCCAACTTCTCTTTGATCTCTGAATCCCTCTGACTCCAAC
TTCTCTTACCCCTCTATGAGTCCCATTTTACTTCTACACCTGCAAGTCTGGTTTATATTGGACCCCTCCCTCC
GAGCTGCAGTTACCTTTGACCTTGCCCTACCTTTACCCCCACCCCCACAGCGTCAGCTCCTACCTCTGACC
CCAGCTTCTCTGATTCCACAGGCCCCATGCATCTCCCTGCCTCACTCCCTCAGCCCTGCCGACCTTAGC
TTATCTGGGAGAGAAACAAGGCCTGGTGCCTGTGAGGAAGAGAGGTACCCCTACCTCCCTCCCCGCTTCCCTG
CCTCACCTCAATAAAATAAATTAATTGTTGTCATGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 304

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGNYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDAVL DVVRKEAESCDCLQG FQLTHSLGGGTGSGMGTL
LISKIREEFDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTPTYGDL
NHLVSATMSGVTTCLRFPGLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVA AVFRGRMSMKEVDEQMLSVQSKNSSYFVEWIPNNVKTAVCDIPPRGLKMAATFIGNSTAIQ
ELFKRISEQFTAMFRRKAF LHWYTGE GMDMEFTEAESNMNDLVSEYQQYQDATAEEGEFEEEEEEVA

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FIGURE 305

CGGCCGCGTCTCAAGCCGGCACCTGAGCGGGCGGAGACGGCTGTAGCACAAAGGATCTGCATCTCCAATGGATACT
GAGGGGTTTGGTGAGCTCCTTCAGCAAGCTGAACAGCTTGCTGCTGAGACTGAGGGCATCTCAGAGCTTCCCCAT
GTGGAACGGAACCTTACAGGAGATCCAGCAGGCGGGAGAGCGCCTGCGTTCCCGTACCCTAACACGCACGTCCCAG
GAGACGGCAGATGTCAAGGCGTCAGTTCTCCTCGGGTCTCGGGGACTTGACATATCCACATCTCCCAGCGATTG
GAGAGTCTGAGTGCAGCCACCACCTTTGAGCCTCTTGAGCCTGTGAAGGACACTGACATTGAGGGCTTCTGAAG
AATGAGAAGGACAATGCCCTGCTGTCTGCCATCGAAGAGTCCCGGAAGAGGACCTTCGGCATGGCTGAGGAGTAC
CATCGGGAGTCAATGTTGGTTGAGTGGGAGCAAGTGAAACAGCGAATTCTGCACACACTGCTGGCATCAGGAGAA
GACGCCCTTGACTTTACTCAAGAAAGCGAGCCAAGCTACATCAGTGATGTGGGACCCCTGGTGAAGCTCTCTG
GATAACATCGAGATGGCCTATGCGCGGCAAATTTATATCTATAATGAGAAAATTGTAAATGGACACCTGCAGCCT
AACCTGGTGGACCTTTGTGCTTCCGTGCGCAGAGCTGGATGATAAGAGCATTTCGACATGTGGACCATGGTAAAA
CAAATGACAGACGTGTTGTTGACACCGGCAACGGATGCCCTGAAGAACCGCAGCAGCGTGGAAGTGCAGTGGAG
TTTGTGAGGCAGGCCTTGGCGTACCTTGAGCAGAGTTATAAGAATTACACCCTTGACTGTCTTTGGAAATTTG
CATCAGGCCCAGCTGGGCGGGGTGCCTGGGACTTACCAATTGGTTGGAAGTTTCTGAAACATTAACTGCCAGCT
CCCTTGCTGGACTACAGGATGGAGAGGTGGAAGGCCATCCTGTGTGGGCGCTAATTTACTACTGCATGCGCTGT
GGAGACCTGCTTGCCGCTTACAGGTAGTTAATCGAGCCCAGCACCGCTGGGAGAGTTTAAACCTGGTTCCAG
GAGTACATGAACAGCAAGGACAGAAGATTGTCCCAGCTACGGAACAAGCTCCGGCTGCATTACCGTAGGGCC
CTCAGGAACAATACAGATCCCTACAAGCGGGCGGTGTACTGTATCATTGGCAGATGTGACGTCACCGACAACAG
AGTGAAGTGGCGGACAAAAGTGGAGTTACCTGTGGCTGAAGTTGAACCAAGTGTGTTTTGACGACGATGGCACC
AGCTCCCCACAAGACAGGCTCAGTCTCTCACAGTTCAGAAAGCAGTTGTTGGAAGACTATGGCGAGTCCCCTTT
ACGGTGAACCAGCAACCTTCTCTACTTCCAAGTCTGTTTCTGACAGCGCAGTTTGAAGCAGCAGTTGCCTTT
CTTTTCCGATGGAGCGGCTGCGCTGCCATGCTGTCCATGTAGCACTGGTGCTGTTTGAAGCTGCTTTTA
AAGTCTCTGGACAGAGTGCTCAGCTCCTCAGCCACGAGCCTGGTGACCCTCCTTGCTTGCGGCGGCTGAACCTC
GTGCGGCTCCTCATGCTGTACACCCGGAAGTTTGAGTCCACGGACCCAAGGGAGGCCCTCCAGTACTTCTATTTC
CTCAGGGATGAGAAAGATAGTCAAGGAGAAAACATGTTTCTGCGCTGTGTGAGTGAGCTTGATTGAAAGCCGA
GAGTTCGATATGATTCTTGGGAACTAGAGAATGACGGAAGTAGAAAGCCTGGAGTCATAGATAAGTTTACTAGT
GACACAAAGCCTATTATCAACAAAGTTGCTTCTGTGGCAGAAAATAAAGGACTGTTTGAAGAGGCAGCAAGCTG
TATGACCTTGCCAAGAATGCTGACAAGGTACTGGAGCTGATGAACAAAGTCTGAGCCCTGTCGTCCCCCAGATC
AGTGCCCCGCAATCCAACAAGGAGAGGCTGAAGAACATGGCACTCTCCATTGCCGAACGGTATAGGGCTCAAGGA
ATAAGCGCAAATAAATTTGTGGACTCCAGTTCTATCTCTTTTGGACTTGATCACCTTTTTTGACGAGTATCAT
AGTGGTCATATTGATAGAGCTTTTGATATCATTGAGCGCTTGAAGCTGGTGCCCTGAATCAGGAAAGTGTGGAA
GAGAGAGTGGCTGCTTTCAGAAATTCAGTGATGAATCAGGCACAACCTCTCAGAAGTGCTTCTTGCCACCATG
AACATCTTGTTACACAGTTTAAGAGGCTCAAGGGGACAAGTCCATCCTCGTCATCCAGGCCCCAGCGAGTCATC
GAGGACCGCGACTCTCAACTCCGAAGTCAAGCCGCACTCTGATTACCTTTGCTGGAATGATACEATACCGAAGC
TCTGGGGACACCAATGCGAGGCTGGTGCAGATGGAGGTCTCATGAATTAAGTGCCATGCTTTGTGGGAGTCTGG
GTCGGCACACTGTGAGTACATCAGGCACATGGGCCACTAGGCTGGGGTTTCTGGTTTTGTTCTGTTGTGTTTT
GTTTTGGTTTCTGTATTATGATTTTTGTCAACGCCAATAAATTTCTTTGATTGT

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FIGURE 306

MDTEGFGELLQQAELAAETEGISELPHVERNLOEIQQAGERLRSRTLRTSQETADV KASVLLGSRGLDISHIS
QRLESLSAATTFEPELVKDTDIQGFLKNEKDNALLSAIEESRKRTFGMAEYHRESMLVEWEQVKQRILHTLLA
SGEDALDFTQSEPSYISDVGPPGRSSLDNIEMAYARQIYIYNEKIVNGHLQPNLVDLCASVAELDDKSISDMWT
MVKQMTDVLLTPATDALKNRSSVEVRMEFVRQALAYLEQSYKNYTLVTVFGNLHQAQLGGVPGTYQLVRSFLNIK
LPAPLPGLQDGEVEGHPVWALIYYCMRCGDLLAASQVVNRAQHQLGEFKTWFOEYMNSKDRRLSPATENKLRRLHY
RRALRNNTDPYKRAVYCIIGRCDVTDNQSEVADKTEDYLWLKLNQVCFDDGTSSPDRLTLSQFQKQLEDYGE
SHFTVNQQPFYFQVFLTAQFEAAVAFLFRMERLRCHAVHVALVLFELKLLKSSGQSAQLLSHEPGDPPCLRR
LNFVRLMLYIRKFESTDPREALQYFYFLRDEKDSQGENMFLRCVSELVIESREFDMILGKLENDGSRKPGVIDK
FTSDTKPIINKVASVAENKGLFEEAAKLYDLAKNADKVLLELMNKLLSPVVPQISAPQSNKERLKNMALSLAERYR
AQGISANKFVDSTFYLLLDLITFFDEYHSGHIDRAFDIERLKLVLNQESVEERVAEFRNFSDEIRHNLSEVLL
ATMNILFTQFKRLKGTSPSSSRPQRVIEDRDSQLRSQARTLITFAGMIPYRTSGDTNARLVQMEVLMN

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FIGURE 307

CCCCAGCGAGGCTCCGGGAGCCCTTGCCTGCGGGGGTCCGGGGACTCGAGCCGGCCTCCGCCCCCGGACGCACA
GCCAGCGTGGTCCCCGCGTGCAACGCGAGCGCCGGGGAGTGGCTCCTGCTTTGCCCTCGTGGGGGCCGAGCCAA
GACCAGTCTGCAAACTCCATCCCGCCGGCTGGAAGAAGTCGCGGAGCCGGCACCACCCGAGCGTCTTCCCGC
GCGGATCCCGGGACTTAAAAAGCCGGGGCCACCCGGCCAGGACGGGATGCGGGTGGTCCGGTGCCTCTGCC
ATGAGCGGCGCCTCGCAGCCCCGCGGCCCGGCCCTGCTCTTCCAGCCACCCGAGGCGTCCCGGCCAAACGCCTG
CTGGACGCCGACGACGCGGCGCTGTGGCGGCCAAGTGCCGCGCCTCTCCGAGTGCTCCAGCCCCCGGACTAC
CTCAGCCCCCGGCTCGCCCTGCAGCCCGCAGCCCCGCTGCCGCTCCGGGGGCCGGCGGAGGCTCCGGGAGC
GCGCCGGGGGCCAGCCGATCGCCGACTACCTGCTGCTGCCCTAGCCGAGCGCGAGCATGTGTCCCGGGCGCTG
TGCACTCCACACTGGACGCGAGCTGCGCTGCAAGGTGTTTCCATTAAACACTACCAGGACAAAATCAGGCCTTAC
ATCCAGCTGCCATCGCACAGCAACATTACTGGCATTGTGGAAGTGATCCTTGGGGAAACCAAGGCCTATGTCTTC
TTTGAGAAGGACTTTGGGGACATGCACTCCTATGTGCGAAGCCGGAAGAGGCTGCGGGAAGAGGAAGCCGCCGG
CTCTTCAAGCAGATTGTCTCCGCGCTCGCCACTGCCACCAGTCAGCCATCGTGCTGGGGGACCTGAAGCTTAGG
AAGTTTCGTCTTCTCCACGGAGGAGAGAACCAGCTTAGACTAGAAAGTCTAGAAGACACACATAATGAAGGGG
GAAGATGATGCTTTGTGACACAAACATGGCTGCCAGCCTACGTGAGCCCTGAGATCCTCAACACCCTGGGACC
TACTCCGGAAGGCTGCGGACGTTTGGAGCCTGGGGGTGATGCTCTACACCCTTCTGGTTGGACGATACCCCTTC
CATGACTCAGACCCAGTGCCCTTTTCTCCAAAATTCGGCGTGACAGTTCTGCATTCTGAGCACATTTCCCCC
AAAGCCAGGTGCCTCATTTCGAGCCTCTTGAGACGGGAGCCCTCCGAGAGACTCACTGCCCCGAGATCCTACTG
CACCCCTGGTTTGTAGTCCGTCTTGGAAACCCGGGTACATCGACTCAGAAATAGGAACTTCAGACCAGATTGTTCCA
GAGTACCAGGAGGACAGTGACATTAGTTCCTTCTTCTGCTTAAATCCCCAAAACCTCAGAAACCTCATAATTCTTAA
CACCTGGCATTTCATTCTTAAAGATGGACAGGCCCTTTGGCATGGTACCAACCAGATAATGACTGCATCAGGAT
GAAAGCTGCTGAACTCGGCATGGCGCCTCCTCTTCTGTTGGGATGAGTGACTTTATTGATTGAGCAGCATAT
GCTGTGATTGGCTGCCCTGCAAATTTGTTTCCCTTAAGGAACCCCTACCAACTATCTCTGCTGGATTGAGGATT
CCGCATCTTTTGTGGAGGGCAGAGTATGGACATCTTACACCCGGTGGTCAAGTGTAATAAACTTGAGCATTG
AATGGGAGAAAAAGCAAATCGCACAATGACATATTTTGGTAATAACCGTATTTTTCACAGGGTGACAAATTGGG
CCAATAAATCTGCCATCTTTGAACCTCATCTTTGGTGGCTAGACTGCTACGGCAGCTTCTCTGATGGGAAAGTTC
TTTTTTGGCTTAACACTCACCCCTTTCTTACACTCACATTTACCAATGACTCTGCTCCGTTTTTGGAGCAGACTG
TTTTAAGTTGCTCAGGAGCCTGATGGAACCATGAACCGAGACTCTTCTGTTTCTGCTGCAAGACCTCATCTGCA
CTAATGCCCTTCTCCCTGACCTTGACACTTCCCCCTTTAGCTATAAAAGCACTTACCAGCCGAACGTGGAACAGTA
TCACAAAAGATTCCATCTCCCAACGATTTTCAAACTCTGAGCTCAGAGAGACTCCAGATTTTAAAAAATAATTG
AGTGCTTGAAACTATTAGCTTTTAAAGTTCCCTTCCAAATATGTTAGTACCTACCCCTTACTTTTCCCCAAGAC
CATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACCACCTCTCCAAGAGCAGACA
TTAAACATCTTTGTGCTTTGAAGAGAGTGAATTTGGATAGTCTTGTGATTCTCAGACTAACTTCCAGAATTATA
CTTTAACCCCTCCAGATAATGGTCCGCCTTTGGCATTGTGTGTACATCTGCAGTTTTCATGGTGGGTTGTTAAT
ATTTCAAATGTGTGGTTTTATGAATACGTCTGTATAATCGGCTTCTGGAGTGAAACAGCAAACCCCAAATCTTCAA
AGTTGGAAGGAACCTTTAAAAATCATCCGGTCCAATCTCTTTCTCTTTCTGCCACCTCCCAAGGCAGAAATCCCC
TCTTCAGCTTCTTTGTAGGTGGGAATCCAGCCTCTGTTAGATATGTCCAGAGATGGAACACTCACTCCCTACAA
AAGATGGAGCTTAATGGAGAAATGCAACTTTCATTAATAAAACAAATTCAGATGAAATATCAGTAACCTGTCTTGG
ACAGTGCTGAAATCAGGTGGTTAAACGGGTAAACAAATATACTGTATTTTGAAGAAATGGCACAAAAACAGGCAG
TCATCTTTAAGGGCTATGCCTAGGCAAACTACTAACATGCATTGTGAGAATGCCGTGTATACCTCACGTACTGTG
TACTTTGTACATATATTTTACCTTTTATACCTATGTTTCGATTTTGTGTTTTGTTTCTGCGCTTTGAGGCTTGT
TTGTTGTCTGTGTCTGTCTGAATAACCTGCGTGTCTAAACACCGTGAAATGTGAATGATTATTGGCAATATTAC
CTTGACAGAATCATGGGACTTTGAGAAGAGGGAGGACAGAGGCCCTCTGTGCGACTAACGCTCTCGTGGTTGCTCG
ACTGTTGTATCTGTGATACATTATCCGACTAAGGACTCTGGGCTGGCAGGGCCTTCTGCCGGGAAAGCTAGAAAC
ACTAGGTTCTTCTGTACATACGTGTATATATGTGAACAGTGAGATGGCCGTTTCTGACTTGTAGAGAAATTTTA
ATAAACCTGGTTTCGTA

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FIGURE 308

MRVGPVRSAMSGASQPRGPALLFPATRGVPAKRLDADDAAAVAACPRLSECSPPDYLSPPGSPCSPQPPAA
PGAGGGSGSAPGPSRIADYLLLPLAEREHVSRALCIHTGRELRCKVFP IKHYQDKIRPYIQLPSHSNITGIVEVI
LGETKAYVFFEKDFGDMHSYVRSRKRLREEEAARLFKQIVSAVAHCHQSAIVLGDLKLRKFVFSTEERTQLRLES
LEDTHIMKGEDDALSDKHGCPAYVSPEILNTTGTYSKGAADVWSLGVMLYTLLVGRYPFHSDPSALFSKIRRGQ
FCIPEHISPKARCLIRSLRREPSERLTAPEILLHPWFESVLEPGYIDSEIGTSDQIVPEYQEDSDISSFFC

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FIGURE 309

GGCACGAGGGAGAACTAGTCTCGATTTTTTTTTTTTTTTTTTTCTTTGTTTTGTTTTCTGTATAAAAAAGGAC
CCCAAATATAAAGGTAGGGAAAGGGACAAGAGGGAACATAACCCCTTAGTGTAGAGAAATGGGAAGGAGAAGGAGA
AGCCTCAAAGGAGAGGTGGGAGGGGAATGTCATTAAAGGCAGCAAAGTAATCTCTGTAGAAAGATGGAGGAGGAC
CCTCCATAGCCTCAGAGATAAAGGCAAAGATTGCCCTCTCAGTGTCCAGAAGGGAAATGGCAGCTTTTCTTCCTT
CCATGGCAGCCACTCCATTGCTCACTCCGGATTACCTTCATCCTTATGTAGATAAGAGTGTCTGCAGAGCTCGAAA
GGCAGAGATTGCTTGTGTGGGTTAAAAGTCAGCATTTCAGCAGCAGCTGTGCTCCCGACTCCTCCATCTCAGG
TACCACCGACTGCACTGGGCGGGGCCCTCTGGGGGGAAGGCTCCACGGGGCAGGGATACATCTCGAGGCCAGTC
ATCCTCTGGAGGCAGCCCAATCAGGTCAAAGATTTTGCCCAACTGGTCGGCTTCAGAGTTTCACAGAAGAGAGG
CTTTCGACGAAACATCTCTGCAAAGATACAGCCAACACTCCACATGTCACAGGTGTTGCATATGTGGACTGCAG
AAGAACTTCGGGAGCTCGGTACCAGAGTGTAAACAACCACGGGTGTAAGTGCCATCTGGTAGCTGTAGATTCTGGC
CAGGCCAAAGTCAGCCAGCTTGACTGTTCCACCCTTGTCACCAGAATGTTCTCTGGCTTCAGATCTCGGTGAAC
GATGCAATTGGCATGAAGGAAATCTAGGCCTCTTAGAACTGGCGCATCAGATCCTTGATCGTTTCGGCTGGCAA
GCCTGGTGGGGGTGCCTTGTCCAGATATGTCCTTAGGTCTGGTCTACATGCTCAAACACCAGGGTTACCTTGAT
CTCCCGGTGAGTTCGGGATGTGGCACAGACGTCCATCAGCCGGACAACATTGGGATGCTCAAAGCCTCCAGTCG
CCTCAGTAAAGCCACCTCACGAACTGTGCTGATGGGAAGGCCTCCTCCACCTCCTCCTCATTGGGGACTCTCAC
ACTCTTGAGGGCCACAAAGTGGCCACTGTGGGGATCAGGGCCTTGTAACACTGTCCCATAGGCACCGACACCAAT
TTCAGCCACTGGCTCATATCGAGAGGTAGCCATTCTCAGATCAAGGGAGACCCTCACGCCAGCCCGGGGTGCTGT
GGGGGCGGCCGTTATCGGGGCCCGGAGCCGGTTCCTACGGCCCCATACCCGAGCTCGGTCCGGAGCAG

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FIGURE 310

MSTGVAYVDCRRISGARYQSVTTTGVSIAIW

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FIGURE 311

CGCGATTCTCAGGGATTGATCCGCCTCTTCAGGTAAGTTATCTTCCGGCCCCGTACCACTGTGCCACAGGCGCAG
CCCGCTTCCCTCAGGTGCCCTATCCCGCGCAGAAGACCACGGCTTCACAGAGTGTATTAAAGGGCGTGGCCAGCG
GAACATCCCGCCCCATTCTGTGACGCACGGGTGGCGCGCTGGGACCCGAGGGGTGGGGCTGGGTTAGTAGGA
GACCTGGGGCAAGGCCCCCTGTGGACGACCATCTGCCAGCTTCTCTCGTTCCGTCGATTGGGAGGAGCGGTGGCG
ACCTCGGCCTTCAGTGTTTCCGACGGAGTGAATGCGCGCGCGCTGGGATGCTGCTGCTGGGCTTGTGTCAGGC
GGGTGGGTGCTGTGGGCCAGGCGATGGAGAAGGTGACAGGCGGCAACCTCTTGTCATGCTGCTGATCGCCTG
CGCCTTACCCCTCAGCCTGGTCTACCTGATCCGCTGCGCCGCCGCCACCTGGTCCAGCTGCCCGCAGGGGTGAA
AAGTCTCCATACATTTTCTCCCAATTCCATTCTTGGGCATGCCATAGCATTGGGAAAAGTCCAATTGAATT
TCTAGAAAATGCATATGAGAAGTATGGACCTGTATTTAGTTTTACCATGGTAGGCAAGACATTTACTTACCTTCT
GGGGAGTGTGCTGCTGCTGCTGCTTTTAAATAGTAAAAATGAAGACCTGAATGCAGAAGATGTCTACAGTCGCCCT
GACAACACCTGTGTTTGGGAAGGGAGTTGCATACGATGTGCCTAATCCAGTTTTCTTGGAGCAGAAGAAAATGTT
AAAAAGTGGCCTTAACATAGCCCACTTTAAACAGCATGTTTCTATAATTGAAAAAGAAACAAAGGAATACTTTGA
GAGTTGGGGAGAAAAGTGGAGAAAAAATGTGTTTGAAGCTCTTTCTGAGCTCATAATTTTAAACAGCTAGCCATTG
TTTGCATGGAAAGGAAATCAGAAGTCAACTCAATGAAAAGGTAGCACAGCTGTATGCAGATTGGATGGAGGTTT
CAGCCATGCAGCTGGCTCTTACCAGGTTGGCTGCCCTTGCCTAGTTTCAGACGCAGGGACAGAGCTCATCGGGA
AATCAAGGATATTTCTATAAGGCAATCCAGAAACGCAGACAGTCTCAAGAAAAATGATGACATTCTCCAAAC
TTTACTAGATGCTACATACAAGGATGGCGCTCCTTTGACTGATGATGAAGTAGCAGGGATGCTTATTGGATTACT
CTTGGCAGGGCAGCATACATCCTCAACTACTAGTGCTTGGATGGGCTTCTTTTGGCCAGAGACAAAACACTTCA
AAAAAATGTTATTTAGAACAGAAAACAGTCTGTGGAGAGAATCTGCCCTCTTAACCTATGACCAGCTCAAGGA
TCTAAATTTACTTGATCGCTGTATAAAAGAAACATTAAGACTTAGACCTCCTATAATGATCATGATGAGAATGGC
CAGAACTCCTCAGACTGTGGCAGGGTATACCATTCCTCCAGGACATCAGGTGTGTGTTTCTCCCACTGTCAATCA
AAGACTTAAAGACTCATGGGTAGAACGCTGGACTTTAATCCTGATCGCTACTTACAGGATAACCCAGCATCAGG
GGAAAAGTTTGCCTATGTGCCATTTGGAGCTGGGCGTCATCGTTGTATTGGGGAAAATTTTGCCTATGTTCAAT
TAAGACAATTTGGTCCACTATGCTTCGTTTATATGAATTTGATCTCATTGATGGATACTTTCCCACTGTGAATTA
TACAACTATGATTACACCCCTGAGAACCCAGTTATCCGTTACAAACGAAGATCAAAATGAAAAGGTTGCAAGG
AACGAATATATGTGATTATCACTGTAAGCCACAAAGGCATTGGAAGAGAATGAAGTGTACAAAACAACTCTTGTA
GTTTACTGTTTTTTTTAAGTGTGTAATTCTAAAAGCCAGTTTATGATTTAGGATTTGTTAACTGAATGGTTCTAT
CAAATATAATAGCATTGACACATTTTCTAATAGTTATGATACTTATACATGTGCTTTCAGGAAGTTCCTTGGTG
AAACAATTGTTGAGGGGGGATCTAGGTAATTGGCAGATTCTAAATAATATAATTTCCAGATAGTAATTTAAGAG
TACTCATCGCTCTTGCCAAATAAGTTTCAAGGTATTCAAATCTTGGACTAGTCTGCAAGGTATAAAGAATAAAAA
TCCCACTGAGATACTTGGAACACAGTTTATTATTATTTATCTGGGCAATTATTGTGTGTGTGAGGATGGAAGG
GTAGGGAATAATCGAACATCTAAAGCCTTGAATAAGAGAATACTAATTGTTTTGGTATGATGATACTCAGAAATG
GAGATATTATAGGAAAAAGAAATCCTTTGGAATTTTAACTAAAATCACTGCATATGGGAAATTAAGAGATCCAGG
ACCATATTTGATAAGAGTTCCTAAAAATAATGTAATTATTAATGCTAAAGACTGCTCATGTATCTTGATCTAATT
ACTAAATAAATTACATATTTTATCTGATAAATATGTATCTAGTTCTACAAGGTCACATTTATGTGGAAGTCC
AAAGTCAAGTCTTAGGGGATAATTTGTTTTGGGCTCAGTTGTTCCCTGCTTCCTTTTTTTTTTTTTTTTTTT
TTGAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGTGGATCTCAGCTCACTGCATCCTCTGCCCTC
CCGGGTTCAAGCAATTCTCTGCCTCAGCTCCCAAGTAGTTGGGATTACAGGCACCTGCCACCATGCTTGGCTAA
TTTTTTGATTTTTTAGTAGAGACGGGGTTTTCACTATGTTGGCTAGGCTGGTCTTGAACCTCTGAGCCTCGTGAG
TCCACCCGCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGCACCTGGCCTTCCCTGCTTCCTCT
CTAGAATCCAATTAGGGATGTTTGTACTACTCATATTGATTAACAGTTAACAACCTTTTTCTTTTTTAAAT
GTGAGATCAGTGAACCTCGTTTTAAGATAATCTGAAACAAGGTCCTTGGGAGTAATAAATTTGGTCACATTCTG
TAAAGCACATTCTGTTTAGGAATCAACTTATCTCAAATTGTAACCGGGCCTAACTATATGAGATGGCTGAAAA
AATACCACATCGTCTGTTTTCACTAGGTGATGCCAAATATTTTGCTTTATGTATATTACAGTTCTTTTTAAAC
ACTGGAAGACTCATGTTAACTCTAATTGTGAAGGCAGAATCTCTGCTAATTTTTTCAGATTAAAATTTCTTTGA
AAAAAT

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FIGURE 312

MAAAAGMLLLGLLQAGGSVLGQAMEKVTGGNLLSMLLIACFTLSLVYLIRLAAGHLVQLPAGVKSPPIYFSP
FLGHAIAFGKSPIEFLENAYEKYGPVFSFTMVGKTFYLLGSDAAALLFNSKNEDLNAEDVYSRLTTPVFGK
YDVPNPVFLEQKKMLKSGLNIAHFKQHVSIIEKETKEYFESWGESGEKNVFEALSELIILTASHCLHGKEIR
NEKVAQLYADLDGGFSHAALLPGWLPLPSFRRRDRAHREIKDIFYKAIQRRQSQEKIDDILQTLDDATYKGR
PLTDDEVAGMLIGLLLAGQHTSSTTSAWMGFFLARDKTLQKKCYLEQKTVCGENLPPLTYDQLKDLNLLDRCI
TLRLRPPIMIMMRMARTPQTVAGYTIPPGHQVCVSPVTNQLKDSWVERLDFNPDRLQDNPASGEKFAYVPFGA
GRHRCIGENFAYVQIKTIWSTMLRLYEFDLIDGYFPTVNYTTMIHTPENPVIRYKRRSK

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FIGURE 313

ACCGCCGACGCAGACCCCTCTCTGCACGCCAGCCCGCCCGCACCACCAATGGCCACAGTTCAGCAGCTGGAAGGA
AGATGGCGCCTGGTGGACAGCAAAGGCTTTGATGAATACATGAAGGAGCTAGGAGTGGGAATAGCTTTGCGAAAA
ATGGGCGCAATGGCCAAGCCAGATTGTATCATCACTTGTGATGGTAAAAACCTCACCATAAAAACTGAGAGCACT
TTGAAAACAACACAGTTTTCTTGTACCCTGGGAGAGAAGTTTGAAGAAACCACAGCTGATGGCAGAAAACTCAG
ACTGTCTGCAACTTTACAGATGGTGCATTGGTTCAGCATCAGGAGTGGGATGGGAAGGAAAGCACAATAACAAGA
AAATTGAAAGATGGGAAATTAGTGGTGGAGTGTGTCATGAACAATGTCACCTGTACTCGGATCTATGAAAAAGTA
GAATAAAAAATTCCATCATCACTTTGGACAGGAGTTAATTAAGAGAATGACCAAGCTCAGTTCAATGAGCAAATCT
CCATACTGTTTCTTTCTTTTTTTTTTTCATTACTGTGTTCAATTATCTTTATCATAAACATTTTACATGCAGCTAT
TTCAAAGTGTGTTGGATTAAATTAGGATCATCCCTTTGGTTAATAAATAAATGTGTTTGTGCT

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FIGURE 314

MATVQQLEGRWRLVDSKGFDEYMKELGVGIALRKMAMAKPDCIITCDGKNLTIKTESTLKTTQFSTLGEKFEE
TTADGRKTQTVCNFTD GALVQH QEWDGKESTITRKLKD GKL VVECMNNVTCTRIYEKVE

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FIGURE 315

TGGCCGAAGCAGGGGGACAGCAAGGGACGCTCAGGCGGGGACCATGCGGGACGGCGGCTCGGAGCGGGCTGACGG
GCGCATCGTCAAGATGGAGGTGGACTACAGCGCCACGGTGGATCAGCGCCTACCCGAGTGTGCGAAGCTAGCCAA
GGAAGGAAGACTTCAAGAAGTCATTGAAACCCCTTCTCTCTCTGGAAGCAGACTCGTACTGCTTCCGATATGGT
ATCGACATCCCGTATCTTAGTTGCAGTAGTGAAGATGTGCTATGAGGCTAAAGAATGGGATTTACTTAATGAAAA
TATTATGCTTTTTGTCCAAAAGGCGGAGTCAGTTAAAACAAGCTGTTGCCAAAATGGTTCAACAGTGCTGTACTTA
TGTGAGGAAATCACAGACCTTCCTATCAAACCTTCGATTAAATTGATACTCTACGAATGGTTACCGAAGGCAAGAT
TTATGTTGAAATTGAGCGTGCAGCTGACTAAAACATTAGCAACTATAAAAGAACAAAATGGTGATGTGAAAGA
GGCAGCCTCCATTTTACAGGAGTTACAGGTGGAACCTACGGGTCAATGGAAAAGAAAGAGCGAGTGGAATTTAT
TTTGGAGCAAATGAGGCTCTGCCTAGCTGTGAAGGATTACATTGAAACAAAATCATCAGCAAGAAAATTAACAC
CAAATTTTCCAGGAAGAAAATACAGAGAAATTAAAGTTGAAGTACTATAATTTAATGATTTCAGCTGGATCAACA
TGAGGGATCCATTTTGTCTATTTGTAAAGCACTACAGAGCAATATATGATACTCCCTGTATACAGGCAGAAAGTGA
AAAATGGCAGCAGGCTCTGAAGAGTGTGTACTCTATGTTATCCTGGCTCCTTTTGACAATGAACAGTCAGATTT
GGTTCACCGAATAAGTGGTGACAAGAAGTTAGAAGAAATCCCAAATACAAGGATCTTTTAAAGCTTTTTACCAC
AATGGAGTTGATGCGTTGGTCCACACTTGTGAGGACTATGGAATGGAATTAAGAAAAGGTTCCCTTGAGAGTCC
TGCAACGGATGTTTTTGGTCTACAGAGGAAGGTGAAAAAGGTGGAAAGACTTGAAGAACAGAGTTGTTGAACA
TAATATTAGAATAATGGCCAAGTATTATACTCGGATAACAATGAAAAGGATGGCACAGCTTCTGGATCTATCTGT
TGATGAGTCCGAAGCCTTTCTCTCAAATCTAGTAGTTAACAAGACCATCTTTGCTAAAGTAGACAGATTAGCAGG
AATTATCAACTTCCAGAGACCCAAGGATCCAAATAATTTATTAAATGACTGGTCTCAGAACTGAACTCATTAAAT
GTCTCTGTTAACAACAACTACGCATCTCATAGCCAAAGAGGAGATGATACATAATCTACAATAAGGGTCTTAGTG
CTTTAGAAAAAAGTTAAAATTGGAAGTCATTAAAAAAGACTGTTATAATGGTGTATATGTTGGGGTTTTTTTTTC
TAAGCTTCTTTGTCTTAAATTTTAAATAGTGAATATGTTTGAGACTCCCTTTGACCTTTTCAGTTCCCCAAGTTC
ATTGTTAACTTTGCATTTGCAATTGGTGCAAAAATACAGATTCTGTCTGTGAATACACAAAAGTTGTGTCTAT
AACTTACCCAGATATGTTTTCTATCATTGAAACCTTTTTAGCTACTGTTTGTTCATTCAACTAACAAACAT
ATTCCAATAATAAAGCAGTATATACATATTTCCCTTTCTACAGTTACCTCTGATTCTCAACATTTTGTGGGGTAG
TGATTTGGCAAGTGTTTTTAAATAAAACAAATCTCATTGTAAAGTTATCAGTCATTTAGTAGAATAGAAAAGCA
ACATAGAGCATAACAAGACATTTGGGATAGAGTTGTGATTTGTGAAGAATTTGTACTTTGATATTGTGGCGGAAA
GTCTAGACTGAGTGTGTATGCTGGTAAACTGTAGACTTTTTTTTTTTTTTTTGGAGTCCGGCTGGTTCCAATCACA
GTAGCTTGATTGCTTTTACGCCCTCATCCTCTCACTTGATCAGTTGTTCAACAGAATCAGCTGACATAATTGACAC
AGTTTATTGGGTGTTAAGTCCGCTCTATAGGGATAGTGACTACTTTTTTTTTTTTTTTTTTGTCTCTTCTTC
CTCTCCCCTTTCTTATATGGGTTTAAATTTAACATAAAGTTGTTTTATAAGGCTATTGTGGCTTTAACTTG
TAAGTCTGATTACATCATTATTGTTCCAAATTCATTATCTCTGTAGGAACCTTTAGTTCATTATATGAACACTG
GATAACCTAATTTTTTTAATGCTTTAAAAAATGGCAAAAAGACGTCAGGCCACCCTCATAGTAAGTGGTGTAG
TATTAAATATTTTACGGAATTAAAAGTAGCTTGCTGTCAAAGAAACACCTGAGATGAATTGGTGTGAACGAAT
TTTGCAAGTTTAAATTTGATTTATTTTCAAGAGAAAATAGAAAAACAATGTTAGAAGGTTATTTAAATGATACTTA
AATAAAGAAAGTGTGAGGTCTACTTTAAAAAATTCAAATGAAGAGAAAAAGAAAAACAGCATTCTAGAAATGGC
ATTTCTCCTAATTAATTTTCCACTTAATGGAAGATTATCAATTGTCCTATTTTATGATCCAGGACTGAAGACAG
TTGTGGGATATCTGTCATATTTATCCTGTGAGTCATTGTGAATAATGACATACAGTACTGAAGTAATCTGATTTT
ATTCCTTTGGAATTCATGCAATTGGTCACACTAATAACATCAACATCTGCTATCACTTATCTTTTAAACTAAC
CAAAAAGGCTGGGATTACAGGCATGAGCCACTGCACCCAACCTCTTTCGTCTTTTAAACACACACTAGGC
TCTTTGTGATTATGATTGAGTCTATTTGTAACGTGTCCCAGTGACCAAATTGCACTCGACTCGATCAGCTGT
TCATCCATTTTCGTGTTTTTCTGTCAAACATTAATCCAGCAAATATAGAGGTATTACCAATTTATTTCTTA
GTATTACAAAATAATTCATTAGCATAAAGTACAATAGTGAATATTTGAGTTGTTCCGAACCTCAATTAATCCTG
TTTTACATTTTACAGCTAAAGCTGGCAATCAGGAGAAGAAGCACTTTGTTTTAAATGTGGAGAAGATAACACTTG
ATTCCATTTTATTGTCATTAGTGATTAACCAGCAGGAGAGGTGATGAGCCATTTTCAAATGAAATACCTTTTA
TTTCCATATAATTTTTTATTTTAGAGTTCAATAGCTGTTCTATGATTATCCTCAATTTCCATATGTTACTGAA
TCTGAAAAACATCTTTAAATTCAAACAGTTCCATTTCTCTCTGTAAGTGTTAAATGTGATAAAGTACATAT
TTTAAATGTTTTTTCAGCTCTTGATATAGCAGCAATAAAAACACTAATTTGTGGGTATTTAAGAAAACCTGGAGA
ATAAACTCATACTTTAAAGATC

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FIGURE 316

MADGGSERADGRIVKMEVDYSATVDQRLPECAKLAKGRLQEVITLLSLEKQTRTASDMVSTSRILVAVVKMCY
EAKWDLLENIMLLSKRRSQLKQAVAKMVQCCTYVEEITDLPIKLRLIDTLRMVTEGKIYVEIERARLTKTLA
TIKEQNGDVKEAASILQELQVETYGSMEKKERVEFILEQMRLCLAVKDYIRTQIISKKINTKFFQEENTEKLKLK
YYNLMIQLDQHEGSYLSICKHYRAIYDTPCIQAESEKWQALKSVVLYVILAPFDNEQSDLVHRISGDKKLEEIP
KYDLLKLFTTMELMRWSTLVEDYGMELRKGSLESPATDVFSGSTEEGEKRWKDLKNRVVEHNIRIMAKYYTRITM
KRMAQLLDLSVDESEAFLSNLVVNKTIFAKVDRLAGIINFQRPKDPNNLLNDWSQKLNSLMSLVNKTTHLIAKEE
MIHNLQ

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FIGURE 317

CTGCTCGCGGCCGCCACCGCCGGGCCCGCCGCTCCCTGGCTCCCTCCTGCCTCGAGAAGGGCAGGGCTTCTCA
GAGGCTTGGCGGGAAAAAGAACGGAGGGAGGGATCGCGCTGAGTATAAAAGCCGGTTTTCGGGGCTTTATCTAA
CTCGCTGTAGTAATTCCAGCGAGAGGCAGAGGGAGCGAGCGGGCGCCGGCTAGGGTGGAAGAGCCGGGCGAGCA
GAGCTGCGCTCGGGCGTCTTGGGAAGGGAGATCCGGAGCGAATAGGGGGCTTCGCCTCTGGCCCAGCCCTCCCG
CTTGATCCCCCAGGCCAGCGGTCCGCAACCCTTGCCGCATCCACGAACTTTGCCCATAGCAGCGGGCGGGCACT
TTGCACTGGAACCTTACAACACCCGAGCAAGGACGCGACTCTCCCGACGCGGGGAGGCTATTCTGCCCATTTGGGG
ACACTTCCCCGCCGCTGCCAGGACCCGCTTCTCTGAAAGGCTCTCCTTGCAGCTGCTTAGACGCTGGATTTTTTT
CGGGTAGTGAAAAACAGCAGCCTCCCGCGACGATGCCCCCTCAACGTTAGCTTCACCAACAGGAACATGACCTC
GACTACGACTCGGTGCAGCCGTATTTCTACTGCGACGAGGAGGAGAACTTCTACCAGCAGCAGCAGCAGAGCGAG
CTGCAGCCCCCGCGGCCAGCGAGGATATCTGGAAGAAATTCGAGCTGCTGCCACCCCGCCCCCTGTCCCTAGC
CGCCGCTCCGGGCTCTGCTCGCCCTCCTACGTTGCGGTACACCCCTTCTCCCTTCGGGGAGACAACGACGGCGGT
GGCGGGAGCTTCTCCACGGCCGACCAGCTGGAGATGGTGACCGAGCTGCTGGGAGGAGACATGGTGAACCAGAGT
TTCACTCTGCGACCCGACGAGACCTTCATCAAAAACATCATCATCCAGGACTGTATGTGGAGCGGCTTCTCG
GCCGCCGCCAAGCTCGTCTCAGAGAAGCTGGCCTCCTACCAGGCTGCGCGCAAAGACAGCGGCAGCCCGAACCCC
GCCCGCGGCCACAGCGTCTGTCTCCACCTCCAGCTTGTACCTGCAGGATCTGAGCGCCGCGCCTCAGAGTGCATC
GACCCCTCGGTGGTCTTCCCTACCTCTCAACGACAGCAGCTCGCCCCAAGTCTGCGCCTCGCAAGACTCCAGC
GCCTTCTCTCCGTCCCTCGGATTCTCTGCTCTCCTCGACGGAGTCTCCCCGAGGGCAGCCCCGAGCCCTGGTG
CTCCATGAGGAGACACCGCCACCAGCAGCGACTCTGAGGAGGAACAAGAAGATGAGGAAGAAATCGATGTT
GTTTCTGTGAAAAGAGGCAGGCTCCTGGCAAAAGGTGAGAGTCTGGATCACCTTCTGCTGGAGGCCACAGCAA
CCTCCTCACAGCCCACTGGTCTCAAGAGGTGCCACGTCTCCACACATCAGCACAACTACGCAGCGCCTCCCTCC
ACTCGAAGGACTATCTGCTGCCAAGAGGGTCAAGTTGGACAGTGTGAGATCCTGAGACAGATCAGCAACAAC
CGAAAAATGCACCAGCCCCAGGTCTCGGACACCGAGGAGAAATGTCAAGAGGCGAACACACAACGTCTTGAGCGC
CAGAGGAGGAACGAGCTAAAAACGGAGCTTTTTTGCCCTGCGTGACCAGATCCCGGAGTTGGAAAAAATGAAAAG
GCCCCAAGGTAGTTATCCTTAAAAAAGCCACAGCATACTCCTGTCCGTCCAAGCAGAGGAGCAAAAGCTCATT
TCTGAAGAGGACTTGTTGCGGAAACGACGAGAACAGTTGAAACACAACTTGAACAGCTACGGAACCTTGTGCG
TAAGGAAAAGTAAGGAAAACGATTCCTTCTAACAGAAATGTCTGAGCAATCACCTATGAACTTGTTCAAATGC
ATGATCAAATGCAACCTCACAACTTGGCTGAGTCTTGAGACTGAAAGATTTAGCCATAATGTAACTGCCTCAA
ATTGGACTTTGGGCATAAAAGAACTTTTTTATGCTTACCATCTTTTTTTTTCTTTAACAGATTTGTATTTAAGA
ATTGTTTTTAAAAAATTTTAA

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FIGURE 318

MPLNVSFTNRNYDLDYDSVQPYFYCDEEENFYQQQQQSELOPPAPSEDIWKKFELLPTPPLSPSRRSGLCSPSYV
AVTPFSLRGDNDGGGGSFSTADQLEMVTELLGGDMVNQSFICDPDDETFIKNIIIQDCMWSGFSAAAKLVSEKLA
SYQAARKDSGSPNPARGHSVCSTSSLYLQDLAAAASECIDPSVVFYPLNDSSSPKSCASQDSSAFSPSSDSLLS
STESSPQGSPEPLVLHEETPPTTSSDSEEEQEDEEEDVVSVEKRQAPGKRSESGSPSAGGHSKPPHSPLVLKRC
HVSTHQHNYAAPSTRKDYPAAKRVKLDVVRVLRQISNNRKCTSPRSSDTEENVKRRTHNVLERQRRNELKRSFF
ALRDQIPELENNEKAPKVVLKKATAYILSVQAEQKLI SEEDLLRKRREQLKHKLEQLRNSCA

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FIGURE 319A

ACTCTGGAGTGGGAGTGGGAGCGAGCGCTTCTGCGACTCCAGTTGTGAGAGCCGCAAGGGCATGGGAATTGACGC
 CACTCACCGACCCCCAGTCTCAATCTCAACGCTGTGAGGAAACCTCGACTTTGCCAGGTCCCCAAGGGCAGCGGG
 GCTCGGCGAGCGAGGCACCCCTTCTCCGTCCCCATCCCAATCCAAGCGCTCCTGGCACTGACGACGCCAAGAGACT
 CGAGTGGGAGTTAAAGCTTCCAGTGAGGGCAGCAGGTGTCCAGGCCGGGCTGCGGGTTCTGTGACGTCTTGC
 CCTAGGCAAAGGTCCCAGTTCCTTCTCGGAGCCGGCTGTCCGCGCCACTGGAAACCGCACCTCCCCGCAGC**ATG**

GGCACCAGCCTCAGCCCGAACGACCCCTTGGCCGCTAAACCCGCTGTCCATCCAGCAGACCACGCTCCTGCTACTC
 CTGTGCGGTGCTGGCCACTGTGCATGTGGCCAGCGCTGCTGAGGCAACGGAGGCGGCAGCTCCGGTCCGCGCCC
 CCGGGCCCGTTTGGCTGGCCACTGATCGGAAACGCGCGCGGTGGGCCAGGCGGCTCACCTCTCGTTGCTCGC
 CTGGCGCGCGCTACGGCGACGTTTTCCAGATCCGCTGGGCAGCTGCCCCATAGTGGTGCTGAATGGCGAGCGC
 GCCATCCACCAGGCCCTGGTGACGAGGGCTCGGCCCTTCGCCGACCGCGCGGCTTCGCCTCCTTCCGTGTGGTG
 TCCGGCGCGCGCAGCATGGCTTTCGGCCACTACTCGGAGCACTGGAAGGTGCAGCGCGCGCAGCCCACAGCATG
 ATGCGCAACTTCTTCACGCGCCAGCCGCGCAGCCGCCAAGTCTCGAGGGCCACGTGCTGAGCGAGGCGCGCGAG
 CTGGTGGCGCTGCTGGTGCGCGGAGCGCGGACGGCGCCTTCTCGACCCGAGGCGGCTGACCGTCTGTGGCCGTG
 GCCAACGTCATGAGTGCCGTGTGTTTCGGCTGCCGCTACAGCCACGACGACCCCGAGTTCGGTGAGCTGCTCAGC
 CACAACGAAGAGTTCCGGGCGCAGGTGGGCGCGGGCAGCCTGGTGACGTGATGCCCTGGCTGCAGTACTTCCCC
 AACCCGGTGGCGACCGTTTTTCGCGCAATTCGAGCAGCTCAACCGCAACTTCAGCAACTTCATCCTGGACAAGTTC
 TTGAGGCACTGCGAAAGCCTTCGGCCCGGGGCGCCCCCGCGACATGATGGACGCTTTATCCTCTCTGCGGAA
 AAGAAGGCGGCGGGGACTCGCACGGTGGTGCGCGGCTGGATTGGAGAACGTACCGGCCACTATCACTGAC
 ATCTTCGGCGCCAGCCAGGACACCCGTGCCACCGCGCTGCAGTGGCTGCTCCTCTTCCACAGGTATCCTGAT
 GTGCAGACTCGAGTGCAGGCAGAATTGGATCAGGTGCTGGGGAGGGACCGTCTGCCTTGTATGGGTGACCAGCCC
 AACCTGCCCTATGTCTGGCCTTCTTTATGAAGCATGCGCTTCTCCAGCTTGTGCCTGTCACTATTCTCAT
 GCCACCCTGCCAACACCTCTGTCTTGGGCTACCACATTCCCAAGGACACTGTGGTTTTTGTCAACCAGTGGTCT
 GTGAATCATGACCCAGTGAAGTGGCCTAACCCGGAGAATTTGATCCAGCTCGATTCTTGGACAAGGATGGCCTC
 ATCAACAAGGACCTGACCAGCAGAGTGATGATTTTTTTCAGTGGGCAAAAGGCGGTGCATTGGCGAAGAATTTCT
 AAGATGCAGCTTTTTCTTCTCATCTCCATCCTGGCTCACCAGTGCGATTTTCAGGGCCAACCAATGAGCCTGCG
 AAAATGAATTTAGTTATGGTCTAACCATTAACCCAAGTCATTTAAAGTCAATGTCACTCTCAGAGAGTCCATG
 GAGCTCCTTGATAGTGTGTCCAAAATTTACAAGCCAAGGAACTTGCCAA**TAGA**AAGCAAGAGGCAAGCTGAAA
 TTTTAGAAATATTCACATCTTCGGAGATGAGGAGTAAATTCAGTTTTTTTCCAGTTCCTCTTTGTGCTGCTTC
 TCAATTAGCGTTTAAGGTGAGCATAAATCAACTGTCCATCAGGTGAGGTGTGCTCCATACCCAGCGGTTCTTCAT
 GAGTAGTGGGCTATGCAGGAGCTTCTGGGAGATTTTTTGTAGTCAAAGACTTAAAGGGCCCAATGAATTATTATA
 TACATACTGCATCTTGGTTATTTCTGAAGGTAGCATTCTTTGGAGTTAAATGCACATATAGACACATACACCCA
 AACACTTACACCAACTACTGAATGAAGAAGTATTTTGGTAACCAAGGCCATTTTGGTGGGAATCCAAGATTGGT
 CTCCCATATGCAGAAATAGACAAAAAGTATATTAACAAAGTTTCAGAGTATATTGTTGAAGAGACAGAGACAAG
 TAATTTCAAGTGTAAAGTGTGATTGAAGGTGATAAGGGAAAAGATAAAGACCAGAAATTCCTTTTACACCTTTT
 CAGGAAAATAACTTAGACTCTAGTATTTATGGGTGGATTTATCCTTTTGCCTTCTGGTATACTTCTTACTTTTA
 AGGATAAATCATAAAGTCAAGTGTCTCAAAAAGAAATCAATAGTTGAATTAGTGAGTATAGTGGGGTTCATGAGT
 TATCATGAATTTTAAAGTATGCATTATTAATTTGTAAGTCCCAAGGTGATGTTGTACCTCTTTTGTGCTGCCAAA
 GTACAGAATTTGAATTATCAGCAAAGAAAAAAGCCAGCCAAGCTTTAAATTATGTGACCATAATGTACT
 GATTTTCAGTAAGTCTCATAGTTAAAAAAGTCAACCAATAGTGTGAAATATATTACTTAACTGTCCGTAAG
 CAGTATATTAGTATTATCTTGTTCAGGAAAAGGTGAATAATATATGCCTTGTGTAATATTGAAAATTGAAAAGT
 ACAACTAACGCAACCAAGTGTGCTAAAAATGAGCTTGATTAATCAACCACCTATTTTGTGACATGGAAATGAAGC
 AGGGTTTCTTTTCTTCACTCAAATTTTGGCGAATCTCAAATTAGATCCTAAGATGTGTTCTTATTTTATAACA
 TCTTTATTGAAATCTATTTATAATACAGAATCTGTGTTTGAATAAACCTAATTAATATATTAATTTCCAAAT
 TCATGGCATGCTTAAATTTTAACTAAATTTTAAAGCCATTCTGATTATTGAGTTCAGTTGAAGTTAGTGGAAT
 CTGAACATTTCTCTGTGGAAGGCAGAGAAATCTAAGCTGTGTCTGCCAATGAATAATGGAAAATGCCATGAATT
 ACCTGGATGTTCTTTTACGAGGTGACAAGAGTTGGGGACAGAACTCCCATTACAAGTACCAAGTTTCTCTTCT
 AGATGATTTTTTGAAGTTAACATTAATGCCTGCTTTTGGAAAGTCAGAATCAGAAGATAGTCTTGGAAAGCTGT
 TTGAAAAGACAGTGGAGATGAGGTGAGTGTGTTTTTAAGATGGCAATTACTTTGGTAGCTGGGAAAGCATAA

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FIGURE 319B

AGCTCAAATGAAATGTATGCATTACATTTAGAAAAGTGAATTGAAGTTTCAAGTTTAAAGTTCATTGCAATTA
AACTTCCAAAGAAAGTTCTACAGTGTCTAAGTGCTAAGTGCTTATTACATTTTATTAAGCTTTTTGGAATCTTT
GTACCAAATTTTAAAAAGGGAGTTTTTGTAGTTGTGTGTATGTGTGTGGGGTGGGGGATGGTAAGAGAA
AAGAGAGAAACACTGAAAAGAAGGAAAGATGGTTAAACATTTTCCCACTCATTCTGAATTAATTAATTTGGAGCA
CAAAATTCAAAGCATGGACATTTAGAAGAAAGATGTTTGGCGTAGCAGAGTTAAATCTCAAATAGGCTATTAAAA
AAGTCTACAACATAGCAGATCTGTTTTGTGGTTTTGGAATATTAAAAAACTTCATGTAATTTTATTTTAAATTTT
ATAGCTGTACTTCTTGAATATAAAAAATCATGCCAGTATTTTTTAAAGGCATTAGAGTCAACTACACAAAGCAGGC
TTGCCCAGTACATTTAAATTTTTTGGCACTTGCCATTCCAAAATATTATGCCCCACCAAGGCTGAGACAGTGAAT
TTGGGCTGCTGTAGCCTATTTTTTTAGATTGAGAAATGTGTAGCTGCAAAAATAATCATGAACCAATCTGGATGC
CTCATTATGTCAACCAGGTCCAGATGTGCTATAATCTGTTTTTACGTATGTAGGCCCAGTCGTCATCAGATGCTT
GCGGCAAAAGAAAGCTGTGTTTTATATGGAAGAAAGTAAGGTGCTTGGAGTTTACCTGGCTTATTTAATATGCTTA
TAACCTAGTTAAAGAAAGGAAAGAAAAACAAAAACGAATGAAAATAACTGAATTTGGAGGCTGGAGTAATCAGA
TTACTGCTTTAATCAGAAACCCTCATTGTGTTTTCTACCGGAGAGAGAAATGTATTTGCTGACAACCATTAAAGTCA
GAAGTTTTACTCCAGGTTATTGCAATAAAAGTATAATGTTTATTAAATGCTTCATTTGTATGTCAAAGCTTTGACT
CTATAAGCAAATTGCTTTTTTCCAAAACAAAAAGATGTCTCAGGTTTGTGTTTGTGAATTTTCTAAAAGCTTTCAI
GTCCCAGAACCTTAGCCTTTACCTGTGAAGTGTTACTACAGCCTTAATATTTTCTAGTAGATCTATATTAGATCA
AATAGTTGCATAGCAGTATATGTTAATTTGTGTGTTTTTAGCTGTGACACAACGTGTGTGATTAAAAGGTATACTT
TAGTAGACATTTATAACTCAAGGATACCTTCTTATTTAATCTTTTCTTATTTTGTACTTTATCATGAATGCTTT
TAGTGTGTGCATAATAGCTACAGTGCATAGTTGTAGACAAAGTACATTCTGGGGAAACAACATTTATATGTAGCC
TTTACTGTTTGATATACCAAATTAAAAAAAATTTGTATCTCATTACTTATACTGGGACACCATTACCAAATAAT
AAAAATCACTTTTATAATCTTGAAAAA

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FIGURE 320

MGTSLSPNDPWPLNPLSIQQTLLLLLSVLATVHVGQRLLRQRRQLRSAPPGPFAWPLIGNAAVQAAHLSFA
RLARRYGDVFQIRLGSCPIVVLNGERAIHQALVQQGSADFADRFASFVRVSGGRSMAFGHYSEHWKVQRRRAHS
MMRNFFTRQPRSRQVLEGHVLSEARELVALLVRGSADGAFLDPRPLTVVAVANVMSAVCFGCRYSHDDPEFRELL
SHNEEFGRTVGAGSLVDVMPWLQYFFNPVRTVFREFEQLNRNFSNFILDKFLRHCESLRPGAAPRDMMDAFILSA
EKKAAGDSHGGGARLDLENVPATITDIFGASQDTLSTALQWLLLLFTRYPDVQTRVQAELDQVVGRDRLPCMGDQ
PNLPYVLAFLYEAMRFSSFPVTIPHATTANTSVLGYHIPKDTVVFNQWSVNHDPVKWPNPENFDPARFLDKDG
LINKDLTSRVMIFSVGKRRRCIGEELSKMQLFLFISILAHQCDFRANPNEPAKMNFSYGLTIKPKSFKNVTLRES
MELLDHAVQNLQAKETCQ

FIGURE 321A

CTCTACACACACACACACACCCCTCCCTGCCATCCCTCCCGGACTCCGGCTCCGGCTCCGATTGCAATTGCAACC
TCCGCTGCCGTCGCCGAGCAGCCACCAATTCGCCAGCGTTACAGTGGCTCTTGCCCTCGATGTCCTAGCCTAGG
GGCCCCCGGGCCGGAATTGGCTGGGCTCCCTTACCCTCTGCGGAGTCAATGAGGGCGAACGACGCTCTGCAGGTG
CTGGGCTTGCTTTTACGCTGGCCCGGGCTCCGAGGTGGGCAACTCTCAGGCAGTGTGTCTGGGACTCTGAAT
GGCTGAGTGTGACCGGCGATGCTGAGAACCAATACCAGACACTGTACAAGCTCTACGAGAGGTGTGAGGTGGTG
ATGGGGAACCTTGAGATTGTGCTACGGGACACAATGCCGACCTCTCCTTCTGCACTGGATTTCGAGAAGTGACA
GGCTATGTCTCGTGGCCATGAATGAATTCTCTACTCTACCATTGCCCAACCTCCGCGTGGTGCAGGGAGCCAG
GTCTACGATGGGAAGTTTGCCATCTTCGTCACTTTGAACTATAACACCAACTCCAGCCACGCTCTGCGCCAGCTC
CGCTTGACTCAGCTACCGAGATTCTGTGAGGGGTGTTTATATTGAGAAGAACGATAAGCTTTGTCACATGGAC
ACAATTGACTGGAGGGACATCGTGAGGGACCGAGATGCTGAGATAGTGGTGAAGGACAATGGCAGAAGCTGTCCC
CCCTGTCTATGAGGTTTGCAAGGGGCGATGCTGGGGTCTGGATCAGAAGACTGCCAGACATTGACCAAGACCATC
TGTGCTCCTCAGTGAATGGTCACTGCTTTGGGCCCAACCCCAACCAGTGTCTGCCATGATGAGTGTGCCGGGGG
TGCTCAGGCCCTCAGGACACAGACTGCTTTGCCTGCCGGCACTTCAATGACAGTGGAGCCTGTGTACCTCGCTGT
CCACAGCCTCTTGCTACAACAAGCTAACTTTCCAGCTGGAACCCAATCCCCACACCAAGTATCAGTATGGAGGA
GTTTGTGTAGCCAGCTGTCCCCATAACTTTGTGGTGGATCAACATCTGTGTGAGGGCCTGTCTCTCTGACAAG
ATGGAAGTAGATAAAAAATGGGCTCAAGATGTGTGAGCCTTGTGGGGGACTATGTCCCAAAGCCTGTGAGGGAACA
GGCTCTGGGAGCCGCTTCAGACTGTGGACTCGAGCAACATTGATGGAATTTGTGAACCTGCACCAAGATCCTGGGC
AACCTGGACTTTCTGATCACCGGCCCTCAATGGAGACCCTGGCACAAGATCCCTGCCCTGGACCCAGAGAAGCTC
AATGTCTTCCGGACAGTACGGGAGATCACAGGTTACCTGAACATCCAGTCTCTGGCCGCCCCACATGCACAACTTC
AGTGTTTTTTTCCAATTGTGACAACCATTGGAGGCAGAAAGCCTCTACAACCGGGGCTTCTCATTGTTGATCATGAAG
AACTTGAATGTACATCTCTGGGCTTCGGATCCCTGAAGGAAATTAGTGCTGGGCGTATCTATATAAGTGCAAT
AGGCAGCTCTGCTACCACTACTCTTTGAACTGGACCAAGGTGCTTCGGGGGCTACGGAAGAGCGACTAGACATC
AAGCATAATCGGCCCGCGCAGAGACTGCGTGGCAGAGGGCAAAGTGTGTGACCCACTGTGCTCTCTGGGGGATGC
TGGGGCCCAGGCCCTGGTCAGTGTCTGCTGTGCAAAATTATAGCCGAGGAGGTGTCTGTGTGACCCACTGCAAC
TTTCTGAATGGGGAGCCTCGAGAATTGCCCATGAGGCCGAATGCTTCTCTGCCACCCGGAATGCCAACCCATG
GGGGGCACTGCCACATGCAATGGCTCGGGCTCTGATACTTGTGCTCAATGTGCCCATTTTCGAGATGGGGCCAC
TGTGTGAGCAGCTGCCCCCATGGAGTCCTAGGTGCCAAGGGCCCAATCTACAAGTACCCAGATGTTTCAAGATGAA
TGTGCGCCCTGCCATGAGAAGTGCACCCAGGGGTGTAAAGGACCAGAGCTTCAAGACTGTTTAGGACAAACACTG
GTGCTGATCGGCAAAACCCATCTGACAAATGGCTTTGACAGTGATAGCAGGATTGGTAGTGATTTTCATGATGCTG
GGCGGCACTTTTCTCTACTGGCGTGGGCGCCGGATTAGAAATAAAGGGCTATGAGGCGATACTTGAACGGGGT
GAGAGCATAGAGCCTCTGGACCCAGTGAGAAGGCTAACAAAGTCTTGCCGAGAATCTTCAAAGAGACAGAGCTA
AGGAAGCTTAAAGTGCTTGGCTCGGGTGTCTTTGGAAGTGTGCACAAAGGAGTGTGGATCCCTGAGGGTGAATCA
ATCAAGATTCCAGTCTGCATTAAAGTCAATTGAGGACAAGAGTGGACGGCAGAGTTTTCAAGCTGTGACAGATCAT
ATGCTGGCCATTGGCAGCCTGGACCATGCCACATTGTAAGGCTGCTGGGACTATGCCAGGGTCACTCTGCGAC
CTTGCTCACTCAATATTTGCTCTGGGTTCTCTGCTGGATCATGTGAGACACACCGGGGGGCACTGGGGCCACAG
CTGCTGCTCAACTGGGGAGTACAAATTGCCAAGGGAATGTACTACCTTGAGGAACATGGTATGGTGCATAGAAAC
CTGGCTGCCGAAACGTGCTACTCAAGTCAACCCAGTACAGGTTACAGTGGCAGATTTTGGTGTGGCTGACCTGCTG
CCTCCTGATGATAAGCAGTGTCTATACAGTGAGGCCAAGACTCCAATTAAGTGGATGGCCCTTGAGAGTATCCAC
TTTGGGAAATACACACACAGAGTGTATGTCTGAGACTATGGTGTGACAGTTTGGGAGTTGATGACCTTGGGGCA
GAGCCCTATGACAGGGCTACGATTGGCTGAAGTACCAGACCTGCTAGAGAAGGGGGAGCGGTTGGCACAGCCCCAG
ATCTGCACAAATTGATGTCTACATGGTGTATGGTCAAGTGTGGATGATTGATGAGAACATTGCCCAACCTTTAAA
GAACTAGCCAATGAGTTTACCAGGATGGCCCCGAGACCCACCACGGTATCTGGTCATAAAGAGAGAGAGTGGGCCT
GGAATAGCCCTTGGGCCAGAGCCCCATGGTCTGACAAACAAGAAGCTAGAGGAAGTAGAGCTGGAGCCAGAAGTCA
GACCTAGACCTAGACTTGGAGCAGAGGAGGACAACCTGGCAACCACCACACTGGGCTCCGCCCTCAGCCTACCA
GTTGGAACACTTAATCGGCCACGTGGGAGCCAGAGCCTTTTAAAGTCCATCATCTGGATACATGCCCATGAACCAG
GGTAATCTTGGGGGGTCTTGGCAGGAGTCTGCAGTTTCTGGGAGCAGTGAACGGTGGCCCCGTCAGTCTCTCTA
CACCCAATGCCACGGGGATGCTTGGCATCAGAGTCTCAGAGGGGCATGTAACAGGCTCTGAGGCTGAGCTCCAG
GAGAAAGTGTCAATGTGTAGAAGCCGGAGCAGGAGCCGGAGCCACGGCCACGCGGAGATAGCGCTACCATTC

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FIGURE 321B

CAGCGCCACAGTCTGCTGACTCCTGTTACCCCACTCTCCCCACCCGGGTTAGAGGAAGAGGATGTCAACGGTTAT
GTCATGCCAGATACACACCTCAAAGGTACTCCCTCCTCCCGGAAGGCACCCTTTCTTCAGTGGGTCTCAGTTCT
GTCTGGGTACTGAAGAAGAAGATGAAGATGAGGAGTATGAATACATGAACCGGAGGAGAAGGCACAGTCCACCT
CATCCCCCTAGGCCAAGTTCCCTTGAGGAGCTGGGTATGAGTACATGGATGTGGGGTCAGACCTCAGTGCCTCT
CTGGGCAGCACACAGAGTTGCCCACTCCACCCTGTACCCATCATGCCCACTGCAGGCACAACTCCAGATGAAGAC
TATGAATATATGAATCGGCAACGAGATGGAGGTGGTCCTGGGGGTGATTATGCAGCCATGGGGGCTGCCAGCA
TCTGAGCAAGGGTATGAAGAGATGAGAGCTTTTCAGGGGCCTGGACATCAGGCCCCCCATGTCCATTATGCCCCG
CTAAAACTCTACGTAGCTTAGAGGCTACAGACTCTGCCTTTGATAACCTGATTACTGGCATAGCAGGCTTTTC
CCCAAGGCTAATGCCCAGAGAACGTAACCTCCTGCTCCCTGTGGCACTCAGGGAGCATTTAATGGCAGCTAGTGCC
TTTAGAGGGTACCGTCTTCTCCCTATTCCCTCTCTCTCCAGGTCCCAGCCCCTTTTCCCAGTCCCAGACAATT
CCATTCAATCTTTGGAGGCTTTTAAACATTTTGACACAAAATTCTTATGGTATGTAGCCAGCTGTGCACTTTCTT
CTCTTTCCCAACCCAGGAAAGGTTTTCCTTATTTTGTGTGCTTTCCAGTCCCATTCTCAGCTTCTTCACAGG
CACTCCTGGAGATATGAAGGATTACTCTCCATATCCCTTCCTCTCAGGCTCTTGACTACTTGGAACTAGGCTCTT
ATGTGTGCCTTTGTTTCCCATCAGACTGTCAAGAAGAGGAAAGGGAGGAAACCTAGCAGAGGAAAGTGTAATTTT
GGTTTATGACTCTTAACCCCTAGAAAGACAGAAGCTTAAATCTGTGAAGAAAGAGGTTAGGAGTAGATATTGA
TTACTATCATAAATCAGCACTTAACCTATGAGCCAGGCATCATACTAACTTCACCTACATTATCTCACTTAGTCC
TTTATCATCCTTAAACAATTCTGTGACATACATATTATCTCATTTTACACAAAGGGAAGTCGGGCATGGTGGCT
CATGCCTGTAATCTCAGCACTTTGGGAGGCTGAGGCAGAAGGATTACCTGAGGCAAGGAGTTTGAGACCAGCTTA
GCCAACATAGTAAGACCCCATCTC

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FIGURE 322

MRANDALQVLGLLFSLARGSEVGNSQAVCPGTLNGLSVTGDAENQYQTLTKLYERCEVVMGNLEIVLTGHNADLS
FLQWIREVTGYVLVAMNEFSTLPLPNLRVVRGTQVYDGKFAIFVMLNYNTNSSHALRQLRLTQLTEILSGGVYIE
KNDKLCHMDTIDWRDIVRDRDAEIVVKDNGRSCPPCHEVCKGRCWGPGEEDCQTLTKTICAPQCNGHCFGPNPNQ
CCHDECAGGCSGPQDTCFACRHFNDGACVPRCPQPLVYNKLTQLEPNPHTKYQYGGVCVASCPHNFVVDQTS
CVRACPPDKMEVDKNGLKMCPECGGLCPKACEGTGSGSRFQTVDSNIDGFVNCTKILGNLDFLITGLNGDPWHK
IPALDPEKLNIVFRTVREITGYLNIQSWPPHMHNFVFSNLTTIGGRSLYNRGFSLIMKNLNVTSLGFRSLKEIS
AGRIYISANRQLCYHHSNLNWKVLRGPTTEERLDIKHNRPRRDCVAEGKVCDPLCSSGGCWGPQCLSCRNYSR
GGVCVTHCNFLNGEPREFAEAECSCHPECQPMGGTATCNGSGSDTCAQCAHFRDGPCHVSSCPHGVLGAKGPI
YKYPDVQNECRPCHENCTQGCKGPELQDCLGQTLVLIGKTHLTMTALTVIAGLVVIFMMLGGTFLYWRGRRIQNKR
AMRRYLERGESIEPLDPSEKANKVLARIFKETELRKLKVLGSGVFGTVHKGWVWIEGESIKIPVCIKVIDEKSGR
QSFQAVTDHMLAIGSLDHAHIVRLLGLCPGSSLQLVLTQYLPGLSLLDHVRQHRGALGPQLLLNWGVQIAKGMYYL
EEHGMVHRNLAARNVLLKSPSQVQVADFGVADLLPPDDKQLLYSEAKTPIKWMALESIHFVKYTHQSDVWSYGV
VWELMTFGAEPYAGRLAEVPDLLEKGERLAQPQICTIDVYVMVVKCWMIDENIRPTFKELANEFTRMARDPPRY
LVIKRESGPGIAPGPEPHGLTNKKLEEEVELEPELDLDLDLEAEEDNLATTTLSALSPLVGTNLNRPRGSQSLLSP
SSGYMPMNQGNLGGSCQESAVSGSSERCPRVSLHPMPRGCLASESSEGHVTGSEAELOEKVSMCRSRSRSPR
PRGDSAYHSQRHSLTPTVPLSPPGLEEDVNGYVMPDTHLKGTPSSREGTLSSVGLSSVLGTEEEDEDEEYMYM
NRRRRHSPPHPRPSSLEELGYEYMDVGSLSASLGSTQSCPLHPVPIMPTAGTTPDEDEYEMNRQRDGGGPGGD
YAAMGACPAEQGYEEMRAEQGPGHQAPHVHYARLKTLSLEATDSAFDNPDYWHSRLFPKANAQRT

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FIGURE 323A

GTCGGCCGTCCTTTAAATTTTTAAATACACGGTCCCCTCTTTTCTCTGGGGGGGCAAGCAAGAAATCAAAGAA
GGAGGAGACAAGCCGTCAATTTTCTCCAAAACAAACCCACCGGGCAA¹TTGGTCTCGGGGTAGGGGGAGACGGG
GTGATTGCAAATTATTCAGGACGAGATCCAGTTCTCCAGCGGAAAGGGGCAAAGGAACGCCGCGCTTGGAAG
GGCAGGGTACGACGCTCCCCTTGACGCGCCCGCAGGACCCCGCAAGCTCGTGCCGGCGAAATCGGAGACCGCC
GATCTGTCTCTGTTCTCTCCTGCACGCTGCGCTGCATTGCGAGGAAGACCTGGGGCGCGAGCGAGCGCGACAGC
ATGAGCCTGTGCTGACCTCCGCGCGCGGGCCGAGCCAGGGCTTTGTGCGGGTACCTGCGCCAGCCCGCGCCG
CAACTCTGTGCCAGCTTTTGCAATCTTTTGTGTCAGCGCTGACCGCACCAAGTTAAATGTCCCTTGCAATTT
TCTTTTTTTTGTGTTGTTGTTAATTTTTGGAGAGCTCGCGATCTTGGAAGCCTCAGACGCCATCTACAGTTA
AAACGTAGGTAAC²TGCCCTCTCCCGACCCCCCCTTACACGCCCCCACCCTTTCCACCAAAAAAAGGGGGTGC
AGCGCGGATTCTGGGTGCCGTGCGTGCAGCGCGGTAGACCCGTGCTTGTTCCTTTCTCTTTTGTGTTGGCTTC
TAACGCGTTGGGACTGAGTCGCGCGCGTGAGCTCCCCGAAGACTGCACAACTACCGCGGGCTCTCCGCCCCGT
CTGCGATTGGAAGCCGGCCTGGGGGTGCGCTCGGGAGCCCTGCGCTGCAGCTCCGCACCTTAGCAGCCCGGTA
CTCATCCAGATCCACGCCGGGACACACACAGAGTAACTAAAGTGCGGCGATTCTGCACATCGCCGACTGCT
TTGGGGTAACAAAAAGACCCGAGTTGCC³TGCCGACCGAGGACCCCGGGAGCCGGGCTCGGAGCAGACGAGGTAT
CCGCGCGCGCCCA⁴TTGGGGGCTTCTAACTCTTTCTCCACGCGACCCCTCTTCTGTCCCCTCCCCTCTCGCTCCC
TTTTAAATCAGTGGCACCGAGGCGCTGCAGCCGCACTCGCCAGCGACTCATCTCTCCAGCGGGTTTTTTTTTG
TTTGTGCTGTGCGATCTCACA⁵CTCATGAACATACACAGGTCTACCCCATCACAATAGCGAGATATGGGAGATC
GCGGAACAAAACCCAGGATTTGAAAGAGTTGTCGTCTATAAGGTCCGCGGAGCCAGCCAGAGTTTCAGCCCGAA
CCTCGGCTCCCCGAGCCCGCCGAGACTCCGAAC⁶TGTGCGATTGCGTTTCTGTATCGGGAAATACTTATTGTT
GGAACCTCTGGAGGGAGACCAGTTTTTCTGCGCGTGCATCTGCACAGCGGAGAGGAGCTGGTGTGAAGGTGTT
TGATATCAGCTGCTACCGAATCCCTGGCACCCTGCTTTTGCCTGTCTGCTCATAGTAACATCAACCAATCAC
TGAAATTATCCTGGGTGAGACCAAGCCTATGTGTTCTTTGAGCGAAGCTATGGGGACATGCATTCTTCGTCCG
CACCTGCAAGAAGCTGAGAGAGGAGGAGGCAGCCAGACTGTTCTACCAGATTGCCTCGGCAGTGGCCCACTGCCA
TGACGGGGGGCTGGTGTGCGGGACCTCAAGCTGCGGAAATTCATCTTTAAGGACGAAGAGAGGACTCGGGTCAA
GCTGGAAGCCTGGAAGACGCCTACATTCTGCGGGGAGATGATGATTCCCTCTCCGACAAGCATGGCTGCCCGGC
TTACGTAAGCCCAGAGATCTTGAACACCAGTGGCAGCTACTCGGGCAAAGCAGCCGACGTGTGGAGCCTGGGGT
GATGCTGTACACCATGTTGGTGGGGCGGTACCCTTTCCATGACATTGAACCCAGCTCCCTCTTCAGCAAGATCCG
GCGTGGCCAGTTCAACATTCCAGAGACTCTGTGCCCCAAGGCCAAGTGCCTCATCCGAAGCATTCTGCGTGGGA
GCCCTCAGAGCGGCTGACCTCGCAGGAAATTCAGGACATCTTGGTTTTCTACAGATTTTAGCGTCTGAATTC
AGCATATGGTGCTAAGGAAGTGTCTGACCAGCTGGTGCCGGACGTCAACATGGAAGAGAACTTGGACCTTTCTT
TAAC⁷TGAGCTCATGCCCCACGGAGACTTAGCAGGTTCCAGGAGTGAGCGAGGGCAGCGGAAAGGAGTTCTTCCGG
GGGACACGAATTGCCTGGCTGAGTAGCAAGAAAGACACACTCTAAGTTTCTTGGTTCAGAGCAGGAAAACCTTC
AAGGAGCTGACTGACCACGTAGCATGGGGGCAAGAGGCGTGGGATGGGGATTGGGGTGAGATGGATGGGAGCCCG
CTGGAGCTTGTCTTCCCTAACATAGCCTGGGAGACCACCCTTGCCACTTGGGCCACTTCCGCTACCCCACTTT
TCATTTTGTTCAAAATAGTTGCAGATCCTGACAGAATCAAACTCTCTGCCTCAAACACACATCTGGCATCGC
ACTGTTAGCATTTAACTTCTGTTAGGATTGAGGAAGGAACAGTTGGCCAAGAATTTTTTTCTTTTAAACAAG
CCAACCACCTAGCTGGTAATTAATGAGGTTCACTTAAAAAATAATTCGGTGCACACAGACTGACATGAAACCTG
GGTGCTACAGTAAAAGAAAACAAAAGTCCAGTTTGTGCTCTTAATCGCTCACTTCAACTCATTTCTTCTAAATA
AACTATTTAATATCCTGGTCAGGAAATGACATGTTAATGCTTTTGTCTCCCTGAAGGGGAAAAAATCTGTCTTTA
ACAAGCTATTCTGTTTTGTGCAATTGGGTCCGTGGCAAGGAAGCTATTAGGAAGTCAAACGGTCCAGGATGCAT
TACCTGCTAATCCTTAGGTTTAAAGGGGAAAGAAAAGGGAAGAAAGGAAAAGAGAAATCCAACCTCTTTT
CATGTTTTGCTTTTGAACAATGAGGTTTTGTGTGACAGGCATTCTCTTTGCTGAGATGATAGCAATGGCCTGAG
ATTTTAGCAAGCTCCTGGAGTCTGATGCTTTTGCAGTACTCTGATCGCAACTAAACATTGTCTTTGTTTTATTA
GAACTAGTGAAACAAAGCAGTTGTCCCACATGTATAAATAACAGGCAGCTATTAGTTTTCTTTACAGAGAA
TGATCCTTTTAAAGGCTTGTAAGGCCCTCTGGTTTGGACAAAACCCCTCAGTAGAGACAAGCGGGAAGGATAATTA
GCTGAAAGCTATGATGATATAAATAAAAACAGCTCTCTATCCCAATACGCACCTTTGTATTTTCAAGAACTCTTC
TATTTATTAAGGAAATGTCACATTGTGATGTATTAAGCCAGTACTCAATTACGGGTGACTTGGGATGACATA
TTACATGCTGTAGTTAACATTATAATTCTTTTCTTGTGTTAGTATTCTGTCTCTGAAATAACCTTTTACTT

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FIGURE 323B

GGCTTTTCTAGATAGCTTTATTTGATTTTCGAGTGGCAAAATGTTTTTTATTACGGCTTTTCTATTGCTGTATGAT
ACAGAACTCTTTTGGCATAAATATTTGTGTTCCCAGTACCTCAGTTGTTTCGGATTGACTGCCTGTATATGTTTT
GTGAAATGGTCCTGTTTTTGGGTAGGTGACACGTGGACTCTAGTATGTAAATGTTACTTGAATCTGTGCTTCATA
ATAGTGTGTGGCATGTATGTGCAGACTCTTGGATGCTTTATGCCCTGCGCACCAGGAGCCCTGTCTCACGTTCCC
AGGAGGGCGGCTTCACCCTTCGTAACCAGGAGACAAGGCGGCCATGGATTGCCCCTTGATTCTATTTTGCTAATG
GAAGATAGAAAGGAGAGAAGGTTTTTTTTTTTTTTTAAACATTCTGAAGATGGTGCTGTGTCAAGAAGGACCTTTT
TTTTCCCTCTCCCTATTTTTTAAGTACCTTGGAGGAGGAGAGGTTGGTGACATGCATGGTGGGGATCTATGGC
CTCTGGTGCTTTGTCTGTATTGGTTTTAATGTTTTTGTCTTAACTCTTCAATCAATAAAATTGTGCGTATTTA
ACTAAAAAAAAAAAAAAAAA

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FIGURE 324

MNIHRSTPITIARYGRSRNKTQDFEELSSIRSAEPSQSFSPNLGSPSPPETPNLSHCVSCIGKYLLLEPLEGDHV
FRAVHLHSGEELVCKVFDISCYQESLAPCFCLSAHSNINQITEIILGETKAYVFFERSYGDMHSFVRTCKKLREE
EAARLFYQIASAVAHCHDGGLVLRDLKLRKFIFKDEERTRVKLESLEDAYILRGDDDSLSDKHGCPAYVSPEILN
TSGSYSGKAADVWSLGVMLYTMLVGRYPFHDIEPSSLFSKIRRGQFNIPETLSPKAKCLIRSILRREPSERLTSQ
EILDHPWFSTDFSVSNSAYGAKEVSDQLVPDVNMEENLDPFFN

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FIGURE 325

CGAGGTTTCGGGTCGTGGGGCGGAGGGAAGAGCGGGCGGGCGGGAGGCGCCGGCGCCAGACGCGGAGGGAAGGAGC
TACGAGTAGCCGCCGAGAGGCCGCGGAGCCAGCGACGACCGACCCAGCCGAGCCGCCGCCGCCGCCGCCA
TGGCGGCCGCCAAGGACACTCATGAGGACCATGATACTTCCACTGAGAATACAGACGAGTCCAACCATGACCCTC
AGTTTGAGCCAATAGTTTCTCTTCTGAGCAAGAAATTAACACTGGAAGAAGATGAAGAGGAACTTTTAAAA
TGGGGGCAAACTGTTCCGATTTGCCTCTGAGAACGATCTCCAGAATGGAAGGAGCGAGGCACTGGTGACGTCA
AGCTCCTGAAGCACAAAGGAGAAAGGGGCCATCCGCCTCCTCATGCGGAGGGACAAGACCCTGAAGATCTGTGCCA
ACCACTACATCACGCCGATGATGGAGCTGAAGCCCAACGCAGGTAGCGACCGTGCCTGGGTCTGGAACACCCACG
CTGACTTCGCCGACGAGTGCCCCAAGCCAGAGCTGCTGGCCATCCGCTTCTGAATGCTGAGAATGCACAGAAAT
TCAAAACAAAGTTTGAAGAATGCAGGAAAGAGATCGAAGAGAGAGAAAAGAAAGCAGGATCAGGCAAAAATGATC
ATGCCGAAAAGTGGCGGAAAAGCTAGAAGCTCTCTCGGTGAAGGAGGAGACCAAGGAGGATGCTGAGGAGAAGC
AAATAATCGTCTTATTTTATTTTCTTTCTCTCTTTCTTTCTTTTAAAAAATTTTACCCTGCCCCCTCTT
TTTCGGTTTGTTTTATTCTTTTCAATTTTACAAGGACGTTATATAAAGAACTGAACTC

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FIGURE 326

MAAAKDTHEDHDTSTENTDESNHDPQFEP IVSLPEQEIKTLEEDDEEELFKMRAKLFRFASENDLPEWKERTGDV
KLLKHKEKGAIRLLMRRDKTLKICANH YITPM MELKPNAGSDRAWVWNTHADFADEC PKPELLAIRFLNAENAQK
FKTKFEECRKEIEEREKKAGSGKNDHAEKVAEKLEALSVKEETKEDAEKQ

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FIGURE 327

GGGGGCGTGGCCCCGAGAAGGCGGAGACAAGATGGCCGCCCATAGCGCTTGGAGGACCTAAGAGGCGGTGGCCGG
GGCCACGCCCCGGGCAGGAGGGCCGCTCTGTGCGCGCCCGCTCTATGATGCTTGC GCGCGTCCCCCGCGCGCCGC
GCTGCGGGCGGGCGGGTCTCCGGGATTCCAAGGGCTCGGTTACGGAAGAAGCGCAGCGCCGGCTGGGGAGGGGG
CTGGATGCGCGCGCACCCGGGGGGAGGCCGCTGCTGCCCGGAGCAGGAGGAGGGGAGAGTGGCGGGCGGCGCAG
CGCGCTGGCGGGCGACTCCGCCATAGAGCAGGGGGGCGCAGGGCAGCGCGCTCGCCCCGTCCCCGGTGAGCGGCGT
GCGCAGGGAAGGCGCTCGGGGGCGGCGGCCGTGGCCGGGGCGGTGGAAGCAGGCGGGGCCGGGGCGGCGGCGTCTG
TGGCCGTGGCCGGGGCGGGGGCCGTGGCCGGGGACGGGGACGGGGCCGGGGCCGGGGCCGGGGCCGTCCCCCGAG
TGGCGGCAGCGGCCCTTGGCGGCGACGGCGGCGGCTGCGCGGCGGCGGCGCAGCGGTGGCGGCGGCGCCCCCGGCG
GGAGCCGGTCCCTTTCCCGTGGGGAGCGCGGGGGCGGGGCCAGGGGACCCGGGGCCACGGAGAGCGGGGAAGAG
GATGGATTGCCCGGCCCTCCCCCGGATGGAAGAAGGAGGAAGTGATCCGAAAATCTGGGCTAAGTGCTGGCAA
GAGCGATGTCTACTTTCAGTCCAAGTGGTAAGAAGTTCAGAAGCAAGCCTCAGTTGGCAAGGTACCTGGGAAA
TACTGTTGATCTCAGCAGTTTTGACTTCAGAACTGGAAGATGATGCCTAGTAAATTACAGAAGAACAACAGAG
ACTCGAAACGATCTCTCAATCAAAATAAGCTGCGCTGGAACACTCATCGTCTGCACCATGGCATGCGCTTTC
AAGACTCTGCTTGCTCATACGCTGTTTGCTCTGCTTGGAAATGTGCTTACCCCTTCCCTTTCATCTGGTGAAC
CTACTCATCCAAGACCCAGCTTCATTGTCTCCATCTCTGGGAAGCCTGCCCTGCATACTCCAGGCAGAACCAATC
CTTTCTCCATTAAGGGTAAACCAGACTTGAATACAACATTGCCAATTAGACAAAACAGCATCAATTTTCAACCAAC
CGGTAACCAAGTACAAAATCATCTAGTAATAAAGTGAAATCAGACCCACAACGAATGAATGAACAGCCACGTC
AGCTTTTCTGGGAGAAGAGGCTACAAGGACTTAGTGATCAGATGTAACAGAACAATTATAAAAAACCATGGAAC
TACCAAGGTCTTCAAGGAGTTGGTCCAGGTAGCAATGATGAGACCCCTTTATCTGCTGTTGCCAGTGCTTTGC
ACACAAGCTCTGCGCCAATCACAGGGCAAGTCTCCGCTGCTGTGGAAGAACCCCTGCTGTTTGGCTTAACACAT
CTCAACCCCTCTGCAAAGCTTTTATTGTACAGATGAAGACATCAGGAACAGGAAGAGCGAGTACAGCAAGTAC
GCAAGAAATTGGAAGAAGCACTGATGGCAGACATCTTGTCGCGAGCTGCTGATACAGAAGAGATGGATATTGAAA
TGGACAGTGGAGATGAAGCCTAAGAATATGATCAGGTAACTTTCGACCGACTTTCCCCAAGAGAAAATTCCTAGA
AATTGAACAAAAATGTTTCCACTGGCTTTTGCCTGTAAGAAAAAAATGTACCCGAGCACATAGAGCTTTTTAAT
AGCACTAACCAATGCCCTTTTAGATGTATTTTGATGTATATCTATTATTCAAAAAATCATGTTTATTTTGAG
TCCTAGGACTTAAAATTAGTCTTTTGTAAATCAAGCAGGACCCTAAGATGAAGCTGAGCTTTTGATGCCAGGTG
CAATCTACTGGAAATGTAGCACTTACGTAAACATTTGTTTCCCCACAGTTTTAATAAGAACAGATCAGGAATT
CTAAATAAATTTCCAGTTAAAGATTATTGTGACTTCACTGTATATAAACATATTTTATACTTTATTGAAAGGG
GACACCTGTACATTCTTCCATCATCACTGTAAAGACAAATAAATGATTATATTCACAGACTGATTGGAATTCCTT
CTGTTGAAAAGCACACACAATAAAGAACCCTCGTTAGCCTTCCTCTGATTACATTCAACTCTGATCCCTGGGC
CTTAGGTTTGACATGGAGGTGGAGGAAGATAGCGCATATATTTGCAGTATGAACATTGCCTCTGGACGTTGTGA
GAATTGTGCTTTACCAGAATTTCTAAGAATTTCTGCTAAATATCACCTAGCATGTGAATTTTTTTCTTTGCC
TGAGACTTGGACTTTTGATAGTTCTATAAGAATAAGGCTTTTTCTCCCTTGGGCATGAGTCAGATACACAAGGA
CCCTTCAGGTGTTACTAGAAGGCGTCCATGTTTATTGTTTTTAAAGAATGTTTGGCACTCTCTAACGTCCACTA
GCTTACTGAGTTATCAGGTGCAGGTGAGACTCTGGCTACAGTGAGAGGCAGCTTCTAGGCAGAGTTGCTTAATG
AAAGGGTTTGTAACTTTTACAAACCATTACCTGTACCTGGCCTGGCCTCCAAAATATTAACATTCTTTTCTGT
TGAAACTCGCGAGTGTAACCTTCATACCCTGAATTTATTGATATTTAATTATGAAAAGTAGCATTACATTATT
AAACGATTTCTAAAATC

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FIGURE 328

MRAHPGGGRCCPEQEEGESAAAGGSGAGGDSAIEQGGQGSALAPSPVSGVRREGARGGGRGRGRWKQAGRGGGVCG
RGRGRGRGRGRGRGRGRGRPPSGGSGLGDDGGGCGGGGSGGGGAPRREPVPFFPSGSAGPGPRGPRATESGKRM
DCPALPPGWWKKEEVIRKSGLSAGKSDVYYFSPSGKKFRSKPQLARYLGNTVDLSSFDFTGKMMPSKLQKNKQRL
RNDPLNQNKLRWNTHRPAPWHALSRLCLLIRCLLCLECAYPLPLHLVNSYSSKTQLHCLHLWEACPAYSQRNQSF
PP

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FIGURE 329A

CGGACGCGTGGGAACGAAGCCACCCATTACGGTATGATGATGTCAAACGTGATGCTGATGCTACAGTTACAGCCC
CTGCTGGCGCAGCCTCTCTGATTCTCTCTCCCTCTCCGCGTCCAGTGCTGGGCTTTTTTCAGACAAGTGCACTCTCC
TAACCAGGTACATTTCAGCCGCGACCCACTCTCCGCCAGTACCCGGAGGCAGACCCGCGGGAGGAGAGCTGAGGA
CAGCCGCGTGGCTTCGCCAGCAGCGGGGTGGGAGGAAGGACATTAAATACTGCAGAAGTCAAGACCCCCCAGG
TCGAACCCAGACCACGATGCGCGCCCCGGGCTGCGGGCGGCTGGTGCTGCCGCTGCTGCTCCTGGCCGCGGCAGC
CCTGGCCGAAGGCGACGCCAAGGGGCTCAAGGAGGGCGAGACCCCCGGAATTTTCATGGAGGACGAGCAATGGCT
GTCGTCCATCTCGCAGTACAGCGGCAAGATCAAGCCTGGAACCGCTTCGAGACGAAGTGAGGATGACTATAT
CAAGAGCTGGGAGGACAATCAGCAAGGAGATGAAGCCCTGGATACCACCAAGGACCCCTGCCAGAAGGTGAAGTG
CAGCCGCCACAAGGTGTCATTGCCAGGGCTACCAGCGGGCCATGTGCATCAGTCGCAAGAAGCTGGAGCACAG
GATCAAGCAGCCGACCGTGAACTCCATGGAACAAAGACTCCATCTGCAAGCCCTGCCACATGGCCAGCTTGC
CTCTGTCTGCGGCTCAGATGGCCACACTTACAGCTCTGTGTGAAGCTGGAGCAACAGGCGTGCTGAGCAGCAA
GCAGTGGCGGCTGCGATGCGAGGGCCCCCTGCCCCACGGAGCAGGCTGCCACCTCCACCGCCGATGGCAA
ACCAGAGACTTGCACCGGTCAGGACCTGGCTGACCTGGGAGATCGGCTGCGGGACTGGTTCCAGCTCCTTCATGA
AACTCCAAGCAGAATGGCTCAGCCAGCAGTGTAGCCGGCCCCGGCCAGCGGGCTGGACAAGAGCCTGGGGGCCAG
CTGCAAGGACTCCATTGGCTGGATGTTCTCCAAGCTGGACACCAGTGCTGACCTCTTCCTGGACCAGACGGAGCT
GGCCGCCATCAACCTGGACAAGTACGAGGTCTGCATCCGTCCTTCTTCAACTCCTGTGACACCTACAAGGATGG
CCGGGTCTCTACTGCTGAGTGGTGCTTCTGCTTCTGGAGGGAGAAGCCCCCTGCTGGCAGAGCTGGAGCGCAT
CCAGATCCAGGAGGCCGCCAAGAAGAAGCCAGGCATCTTCATCCCGAGCTGCGACGAGGATGGCTACTACCGGAA
GATGCAGTGTGACCAGAGCAGCGGTGACTGCTGGTGTGTGGACCAGCTGGGCCTGGAGCTGACTGGCACGCGCAC
GCATGGGAGCCCCGACTGCGATGACATCGTGGGCTTCTCGGGGACTTTGGAAGCGGTGTGCGCTGGGAGGATGA
GGAGGAGAAGGAGACGGAGGAAGCAGGCGAGGAGGCCGAGGAGGAGGGCGAGGCAGGCGAGGCTGACGACGG
GGGCTACATCTGGTAGACGCCCTCAGAAGCCGGCTGCCGGGGGGGACTCAACAGCAGAGCTCTGAGCAGCAGCAG
GCAACTTCGAGAAGGATCCAGAAATGCAGTCAGAAGGACCTGCTCCACCTGGGGGGGACTGGGAGTGTGAGTGT
GCAITGGCATGTGTGTGGCACAGATGGCTGGGACGGGTGACAGTGTGAGTGCATGTGTGCATGCATGTGTGTATGT
GTGTGTGTGTGTGGCATGCGCTGACAAATGTGCTTGTATCCACACTGCTCCTGGCAGAGTGAGTAACCCAAAGG
CCCCCTCGGCCCTCCTTGTAGCTGTTTTCTTTCTTTGTTGTTGGTTTTTAAATAACATTACACACAAAATACAAA
TTGACAGGTCAAAATCCATGAAATGAGATCCCCAGCGGTGCTCCTCCAGCCCAGCCCTGACCCCTTGGTTTTCTAC
CCTGGCTCCCCCTTGGTTTTCTACCCTGGCTCAACCGACCCCTGTCTGCCCTTCTCCCTCCTGCTTCTGAGGTCAAG
CTCTGGCCTGCGAGCCTGTCCCCATTGCAAAGGGGAGGGAGGGGCAGGGAGCTGTCTACCAGCTGAGGTCTCTCC
AAAAGTGGGCCGATGTGGTGTGACATCCCCACCAGCCTCAGATGAGACGGGCCAGGACGCCACGCCACGCAAGC
CCTGTCCCTTTGCCGATCCCCAAACACTAGAGAAGCTCTCCTAACCCAAGGCGGAGAATGAAGGTGGTGGCGGC
AGAGGAGGAGGGCAGCAGCTGAGAGGCCAGGGACAGGGTGCCTCGCCAAGCTGTCTGAGGTCTGTCCCAGGTGGC
CCAGGTGGTGCAGGTAGAACAGGGTGAGGAGAGGGGGTGGCTCAACAGGAGGAGGCTGTGGCTGCAGAGCCTGG
AGGAGCTTTTAGGTGTTGAGATGGGGCAGCTCTGAATCCTAGACCCTGGAATAGCCTGTCCCTTTTCTCTGGGTC
TCGTGGTGGAGCCATGATCTGGGCTGCTCTCTTGGGGACACTGGGTGGTGGTTACACAGTTGACCTCTGCCTGGC
TCCCCCTTGGTGCAACTCCTGCCCTCCATCCCCCTTGCTGGGGTCCCCCTCATCCACTTGAGGGCGCCTGAGGGCCA
GGAGCAGCAGGCAAGGAGCCTGGGTCTAGGCTAAGGGGGTGTGTGCCACCTCCTCCCTGACCTTAACACTCCT
GTCCTGCCCAGACCAACAGAGAGAGCTGTCCCTGAGACCCCGGAGAGAAGCAGCTGCCGAAAGCTGCAGCCTTTC
CGCACTCTGAGACCATGATCTTCTCCTGCCAGGGGAGAGCCACCCACAGGCCATGTCCAGCCCCACTTCCCTCA
GCCCCAGGGCTTCTTCTGGCCCCCTGAGGATTCCCTAGGGCTGCCCCGAGAGGGGCTTCCCCAAGCTCTGT
TTTGAAGCCTGCAATGTGGAAGTGAGAAGTCAGAGGGAACAGGACAGGTGCAGCCGGGCTCTGAGGCCACACC
TCACACCTCGCTGTTCCCAACATCCCCTGAGCAGTGTGAGCTCATCTCACCAGATGAGAAGAGGCCCTGTGCAT
TTCTTTTGTGTTGTTGTTGCTGTTTTCCCCCACCCTCCAGTTCTCCTCAGCAAAGCAAATTCCTTAACACCTTT
GGTGGAGAATTTCTTACCAGACTTGGGGCTGTGATGCCCTTCAGTGGTGGTGTGAGTGCAGCGTGTGTGCGTGTG
CCTGTGTGTGAACCTGGGGGCCATCCTGGTGGCTGGGAGCGTGAGGAGAGGGCCCCCTGTGTGCTGGGTGAGTGG
TGGGTGTGGGTCAATGCAGTGAGGCTCTCTGGGTGAGGCTCCCAACCTGGCAGTCCCCAGCCTCCAGCATCTG
TGAGCGTCTGTTGGACTTTACAGAAGAGCCTCATCCCGTCTGCCCTCACTCTGCCCTGGAATCAACATCTCCG
AGTCCTTCTTGGGGGAAATAGCAGAGCCCCACTTAACCTCATAAACTGCTTCCATTCCGACGCCAGTTCTGAT

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FIGURE 329B

TGTTGAGGTGTCGCGTCGTTCCAGGTCCCCAGTCCCCCTCTTTCTCCTGTCTCTCTGTCTTACCTCCCCA
CTCCAGCCCCGGCTCAGTTTCAAGGAAATGCTGTTCCATATCAGCCCTCTGCTCTCTGAGGCAGCCGCGCTCTGA
CTCGGAGCTACTTGAAACTTCTGCTCTTGCTAGGATTGGAGTCTACCTATCTCTTCCATTGTCCCAGCTGGAGT
TCTGGAACCTTTCTCCTCGGGGTGGGGGTGGGGGTTGTTAAGGATGCTGGGGGGCCTGGGGAAGGAAGGAGTTCA
GAGGAAGGGTGTCCCTGTCTCTTGATGTCAACCCTCCGCTCCTGGGACACGTGCTCTCTGTCTCTGGGTCTT
CTGGCTGTGCACGTTTGTGTGTCCTTGTAATATGTTTTAGGAAGAAAGCAAAAGGGACTGAACTAGCCTCTGGT
AGGATTGCAGGGGTCCAGCCTTGCTGTTTCCGAAGCCCCACACTGCCTTTGCCCCACTGAGACTGGTCCCCCT
CAAAAGGTAGACAAAACAGCAGCTCCCTGTGGAGCTGAAGGGCGGCCTCAAAGTGGCTTTTTGTTAGACAAGGTT
AAGGTTTCCTCATGAGCAAGGTTGCAGATCGGTCCTTCCTCAGCTCCTTGATTGTGACCTTGACCAAGGGGCCT
GCCACCCAGCCCCCTCAGTGCCCTCTCCTCGATGCCTCGCTCCTTCTGCCCCACTCCCCCTGGCTTAGGCAGGT
AGGGGAATTAGGGCCATGCTGGAAGAAGCTTAACCATGTGTTCAAAGAACGGTTTCTTGCTTGCTTGGTCTCTGGA
ACTCCCCTTGCTGCCCCAGGCCTCCTTGCCCCATGGGTGCTGGGGGAGGTGGATGTCAGATCTGGTAGGTTGCA
GCAGAGAAAATAAATGTGCCTTGAGAGACCACTCAGAGAGGGTCCAAGGGTGATGGAGAAGGAAGCATGGCCTGG
GAGCTTGGGAAGGGAGGGGTGGTGGGTGGCGGCATCTTGACTGCCCCCTGTTGTCCCACACGTGGGGGGTGGTCAC
CCCCCTTCACTCCAGCCCGCCTGCCTTCAGCCTTCCATGAGCTTACCTGCTTCCAACCTTCACTTTGGAGGGGGT
GGGGTCCGTTGGCATCAACACGGGGACCCTCTGCTTACCAGGAGCCGAGCCCTCAGCCCCCTGGGGAGAACAAT
GGCTGAGCTTTGATACCTGGGGTCGTGAGAGGCTGCGGGCTGGCGGCAGTCCCAGGGGAGAGACACCACAGAAG
GAGACCCAGACATCCCGAGGAAGTTCCCAGCAGAGCAAAGTCTTTCCAGCCTGAAGCCTGCTTAAACTGTGTGA
TGTGCAATAACTGAGCTTAGAGTTAGGAATTGTGTTCAAGTGCTTGGATTTCGCTCTGTAGATTTAACTGCTGAA
ATTGTATCTCTCAGTAATTTTAGATGTCTTTTAAAAAATTGAAAAACAAAGTGTAGACTGTGTGCGTGTGCGTT
GATGGGCACTCAAGAGTCCCGTGAGTCATCCAGCCCTGCCTTTCCCCTGCGCCCCCATCTCTCACGTCCCGCCC
TGCCTCCACTTGGGGACCCTGCCTCGTGTGCTTTATCTGCCTATTACTCAGCCTAAGGAAACAAGTACACTCC
ACACATGCATAAAGGAAATCAAATGTTATTTTAAAGAAATGGAAAATAAAACTTTATAAACACC

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FIGURE 330

MRAPGCCRLVLPLLLLAAAALAEGBAKGLKEGETPGNFMEDQWLSSISQYSGKIKHWNFRDEVEDDYIKSWED
NQQGDEALDTTKDPCQKVKCSRHKVCIAQGYQRAMCISRKLEHRIKQPTVKLHGNKDSICKPCHMAQLASVCGS
DGHTYSSVCKLEQQACLSSKQLAVRCEGPCPCPTEQAATSTADGKPETCTGQDLADLGDRLRDWFQLLHENSQON
GSASSVAGPASGLDKSLGASCKDSIGWMFSKLDTSADLFLDQTELAAINLDKYEVCIRPFFNSCDTYKDGRVSTA
EWCFCFWREKPPCLAELERIQIQEAAKKKPGIFIPSCDEDGYRKMQCDQSSGDCWCVDQLGLELTGTRTHGSPD
CDDIVGFSGDFGSGVGWEDEEEKETEEAGEEAEDEEGEAGEADDGGYIW

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FIGURE 331

TCTTGA CT CACGCC TTCGCC GTAGCATCTTTCGCAGCGGACCGAAGAGAAGAAAAGTAGGCCAGAGCCGAACTCT
CTTCCTGCCAAGATGTCTATTGGTGTGCCGATTAAAGTACTGCATGAGGCCGAGGGCCACATTGTGACATGTGAG
ACGAACACCGGTGAGGTATATCGGGGGAAGCTCATTGAAGCAGAGGACAACATGAACTGCCAGATGTCCAACATC
ACAGTCACATACAGAGATGGCCGAGTGGCACAGCTGGAGCAGGTATACATCCGTGGCAGCAAAATCCGCTTTCTG
ATTTTGCCTGACATGCTGAAGAACGCACCCATGTTAAAGAGCATGAAAAATAAAAAACCAAGGCTCAGGGGCTGGC
CGAGGAAAAGCTGCCATTCTCAAGGCCCAAGTGGCCGCAAGAGGAAGAGGACGTGGAATGGGACGTGGAAACATC
TTTCAAAGCGAAGATTAATTTTCTAAGTTGAACAGAACITTTGTCCTTTTTTCTTTTCAGGTTATCTGAGTTCAITG
GAGTGGGTGCTTGTGCATATATCTAGGTATCTTTTGCCATCTTTCTCTTTAGATCAGGGGAAATGTTTAAGCTAA
ATAAATCTGGGGGGTTTTTTGTTCTG

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FIGURE 332

MSIGVPIKVLHEAEGHIVTCETNTGEVYRGKLI EAEDNMNCQMSNITVTYRDGRVAQLEQVYIRGSKIRFLILPD
MLKNAPMLKSMKNKNQGSGAGRGKAA ILKAQVAARGRGRGMGRGNIFQRR

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FIGURE 333

CCTGCGTGGCTGGGCTGCTCGGGTTAGATCGTCAAGAAAGCCTAAAGATTAGACTGTAAGAAAAGAAAATAGAA
GCCATGTTTTCGAAGACCTGTATTACAGGTACTTCGTCAGTTTGTAAGACATGAGTCCGAAACAACCTACCAGTTTG
GTTCTTGAAAGATCCCTGAATCGTGTGCACTTACTTGGGCGAGTGGGTCAGGACCCTGTCTTGAGACAGGTGGAA
GGAAAAATCCAGTCACAATATTTTCTCTAGCAACTAATGAGATGTGGCGATCAGGGGATAGTGAAGTTTACCAA
CTGGGTGATGTCAGTCAAAGACAACATGGCACAGAATATCAGTATTCCGGCCAGGCCTCAGAGACGTGGCATAT
CAATATGTGAAAAGGGGTCTCGAATTTATTTGGAAGGGAAAAATAGACTATGGTGAATACATGGATAAAAAATAAT
GTGAGGCGACAAGCAACAACAATCATAGCTGATAATATTATTTCTGAGTGACCAGACGAAAGAGAAGGAGTAG

AAAGGATGATTCTTCTTTGGCCATCATTGGTACAGTCTCATTTCGAAGTCATGTATAATCTTTATGGCTTCCAA
GGACAAGAATTAAAATACTCTTTTACGT

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FIGURE 334

MFRRPVLQVLRQFVRHESETTISLVLERSLNRVHLLGRVGQDPVLRQVEGKNPVTIFSLATNEMWRSRGDSEVYQL
GDVSQKITWHRISVFRPGLRDVAYQYVKKGSRIYLEGKIDYGEYMDKNNVRRQATTIIADNIIFLSDQTKEKE

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FIGURE 335

CCGCCGTAGCGCGTCTTGGGTCTCCCGCTGCCGCTGCTGCCGCCGCCGCTCGGGTCGTGGAGCCAGGAGCGAC
GTCACCGCCATGGCAGGCATCAAAGCTTTGATTAGTTTGCCTTTGGAGGAGCAATCGGACTGATGTTTTTGATG
CTTGGATGIGCCCTTCCAATATACAACAAATACTGGCCCTCTTTGTTCTATTTTTTTACATCCTTTACCTATT
CCATACTGCATAGCAAGAAGATTAGTGGATGATACAGATGCTATGAGTAACGCTTGTAAGGAACCTTGCCATCTTT
CTTACAACGGGCATTGTGCGTGCAGCTTTTGGACTCCCTATTGTATTTGCCAGAGCACATCTGATTGAGTGGGGA
GCTTGTGCACTTGTCTCACAGGAAACACAGTCATCTTTGCAACTATACTAGGCTTTTTCTTGGTCTTTGGAAGC
AAGGACGACTTCAGCTGGCAGCAGTGGTGAAGAAATTACTGAACTATTGTCAAATGGACTTCCTGTCAATTTGT
TGGCAATTCACGCACACAGGAGATGGGGCAGTTAATGCTGAATGGTATAGCAAGCCTCTTGGGGGTATTTAGGT
GCTCCCTTCTCACITTTATTGTAAGCATACTATTTTACAGAGACTTGCTGAAGGATTAAGGATTTTCTCTTT
TGGAAAGCTTGACTGATTTACACITTTCTATAGTATGCTTTTTTGTGGTGTCTGCTGAATTTAAATATTTATG
TGTTTTTCTGTTAGGTTGATTTTTTTTTTGAATCAATATGCAATGTTAAACACTTTTTTAAATGTAATCATTGCA
TTGGTTAGGAATTCAGAATTCGCCCGGCTCTAATTACTGGTCAAGTACATCTTTTCTCTTAAATATTTAGCCTC
CATTATTACAAAAAATTATAAAAAATAAGTTTTTTCAGTCAGTCAGGATGACATCACTCCCAATGTTATGCAGACATA
CAGACGGTTGGCATACTTATAGACTGTATACTCAGTGCAAATATAGCTGCATTTATACCTCAGAGGGGCCAAGT
GTTAATGCCCATGCCCTCCGTTAAGGGTTGTTGGTTTTTACTGGTAGACAGATGTTTTGTGGATTGAAAATTATTT
TATGGAATTGCTACAGAGGAGTGCTTTTCTCTCAATTGTTAGAAGAATTTATGTTAACTTTAAGGTAAGGGTG
TAAAAACATTTTTGAGATAAGGTTTTTATTATGTTTATTATTGTTAGAGTGAGTTGCAATGTGGGAAGAAATGA
CATTGAAATTCAGTTTTTGAATCCTGTTTCTATTTATAAGTGAAATTTGTGATCTCCTATCAACCTTTTCATGTT
TTACCTGTATAAATGGACATACATGAACCACTACTGATGAGGGACAGTTGTATGTTTGCATCATATATGCCAG
AAAACCTTCTCTGCTTCTCTCTTTTACTTATTGTTATGTTGTATATATTACATAAAATACTTTTCAAATAT
AGTTTTAATAACACTTAGAAGTGTTTACTTACCTGGAAAATAATTGCTATGCCGTACATTACAGTGCCCCCTCCC
CTGCAAGGCCCTTGCCATGATTAAACAAGTAACCTGTTAGTCTTACAGATAATTCATGCATTAACAGTTTAAGATTT
AGACCATGGTAATAGTAGTTCTTATTCTCTAAGGTTATATCATATGTAATTTAAAAGTATTTTTAAGCCAAGTTT
CCTGTATACCTCTGAACTGTTTTGATTTTTGAGTTCATCATGATAGATCTGCTGTTTCTTATAAAAGGCATTTGT
TGTGTGAGTTAATGCAAAGTAGCCAAGTCCAGCTATATAGCAGCTTCAGAAACATACCTGACCAAAAAATTCCCA
GTAACCAGGCATGATCAATTTATAGTGGTCTGTTTACATCTAATAATTATCAGGACTTTTTTTCAGGAGTGGGTAT
AAAAACATTCAAGTTGGTCTGACAGTATTTTGTAAAGGATATTTGTTGTATGTTTATTTCAGTATACTTACATAA
AAATTATTTGCGCATCAGCCAAAACCTCAGTAATCATGACAGCTGTCTGTTGTTTATGAAGTTTATTCTCAAGA
AAATGGGAATAAAATTTGGGATTTGTTTCAGCTTTTTTACTAAAGATGCCTAAAGCCACAGGTTTTATTGCCTAACT
TAAGCCATGACTTTTAGATATGAGATGACGGGAAGCAGGACGAAATATCGGCGTGTGGCTGGAGCCTTCCCACTG
GAGGCTGAAAGTGGCTTGTGGTATTATAATGTTTCAGATTTCAAGAGGAAGGTGCAGGTACACATGAGTTAGAGAG
CTGGTGAGACAGTTGGGAACCTTTGTGCTTGTGATCTACTGGACTTTTTTTTTGCAGGAAGTGCATTCTCTGGT
CCTTCCCTATTTTCTGTTCTGGATGTCAGTGCAGTGCAGTGTCTACTGTTTTATCCACTTGGCCACAGACTTTTTT
TAACAGCTGCGTATTATTTCTATATACTAATTGCATTGGCAGCATTGTGTCTTTGACCTTGTATACTAGCTTGAC
ATAGTGTCTGTCTGATTTCTAGGCTAGTTACTTGAGATATGAATTTCCATAGAATATGCACTGATACAACATT
ACCATTCTTCTATGGAAGAAAACCTTTGATGATGAAACAATAAGATTTTAAATATCAAAAAAAAAAAAAAAAAA

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FIGURE 336

MAGIKALISLSFGGAIGLMFLMLGCALPIYNKYWPLFVLFFYILSPIPYCIARRLVDDTDAMSNACKELAIFLTT
GIVVSAFGLPIVFARAHLEWGACALVLTGNTVIFATILGFFLVFGSKDDFSWQQW

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FIGURE 337

CTATCCGCGCGCTCGCCGCCAGTCCTGCTGACGGGAGGATCTGAAGCCGGCCGCGAGGTCAAAGAGTAAA
ATGAAGTACATTCTGGTTACTGGTGGTGTATATCAGGAATTGGAAAAGGAATCATTGCCAGCAGTGTGGGCACA
ATACTCAAGTCATGTGGTTTACATGTAACCTCAATCAAAATTGACCCCTACATTAACATTGATGCAGGAACATTC
TCTCCTTATGAGCATGGTGAGGTTTTTGTGCTGGATGATGGTGGGGAAGTAGACCTTGACCTGGGTAACATGAG
CGGTTCCCTTGACATCCGCCTCACCAAGGACAATAATCTGACCCTGGAAGATATACCAGTATGTCATTAACAAG
GAACGGAAGGAGATTACTTGGGGAAAACGTCCAAGTTGTCCCTCATATCACAGATGCAATCCAGGAGTGGGTG
ATGAGACAGGCGTTAATACCTGTAGATGAAGATGGCCTGGAACCTCAAGTGTGTGTTATTGAGCTTGGTGGAAACC
GTGGGGGACATAGAAAGCATGCCCTTTATTGAGGCCTTCCGTCAGTTCCAATTCAAGGTCAAAGAGAGAACTTT
TGTAACATCCACGTCAGTCTAGTTCCCCAGCCAAGTTCAACAGGGGAACAGAAGACTAAACCTACCCAGAATAGT
GTTCCGGGAACCTTAGAGGACTTGGGCTTTCCCCAGATCTGGTTGTATGCAGGTGCTCAAATCCACTTGACACATCA
GTGAAGGAGAAAAATATCAATGTTCTGCCATGTTGAGCCTGAACAAGTGATCTGTGTCCACGATGTCTCATCCATC
TACCGAGTCCCCCTTGTGTTAGAGGAGCAAGGGGTTGTAGATTATTTTCTTCGAAGACTTGACCTTCCTATTGAG
AGGCAGCAAGAAAAATGCTGATGAAATGGAAAGAGATGGCTGACAGATATGATCGCTTGCTGGAGACCTGCTCT
ATTGCCCTTGTGGCGAAATACACCGAGTTCTCAGACTCCTATGCCCTCTGTCTAAGGCTCTGGAGCATTCTGCA
CTGGCCATCAACCAAAATTGGAATCAAGTACATAGATTCTGCGGACTTGGAGCCCATCACCTCGCAAGAAGAG
CCCGTGCGCTACCACGAAGCTTGGCAGAAGCTCTGTAGTGCTCATGGAGTGCTGGTTCCAGGAGGATTTGGTGTT
CGAGGAACAGAAGGAAAAATCCAAGCAATTGCCCTGGGCTCGGAATCAGAAAAAGCCTTTTTTGGGCGTGTGCTTA
GGGATGCAGTTGGCAGTGGTTGAATTCTCAAGAAACGTGCTGGGATGGCAAGATGCCAATTCTACAGAGTTTGAC
CCTACGACAGTCATCCCGTGGTTCGTAGACATGCCAGAACACACCCAGGGCAGATGGGCGGAACCATGAGGCTG
GGCAAGAGGAGAACCCTGTTCCAGACCAAGAAGTCTGATGAGGAACTCTATGGAGACGCAGACTACTTGGA
GAGAGGCACCGCCACCGATTTGAGGTGAATCCAGTCTGAAAAAGTGTGTTGGAAGAACAAGGCTTGAAGTTGTT
GGCCAAGATGTTGAAGGAGAGAGAATGAAATTTGGGAGTTAGAAGATCATCCCTTTTTTGTGGGGTTCAGTAC
CACCTGAGTTCTGTCCAGGCCTATCAAGCCCTCCCCACCATACTTTGGCCTCCTCTGGCCTCTGTGGGGCGG
CTCTACATTACCTCCAGAAAGGCTGCAGGCTCTCACCCAGGGACACCTATAGTGACAGGAGTGGAAAGCAGCTCC
CCTGACTCTGAAATCACCGAAGTGAAGTTTCCATCAATAAATCATGACTGATCTTGTAGCGGATGATTCTTCAAG
AGACCCTTCAAACCTGGGTAGAGTTTACAGCTCTGACTTTACACTCGGCTTTGGAGACTTTCTTTAAATTATGTT
TTTATTAAGATTATTTTATTATGCGGAAAGGTATTTGGGAACTTGTCACTTGCATGTCCCATCACGTGTACTGG
CTCCTCTGTGGTGTCTGCCTGTTGCGTGACACTCTCCTTGAGTTGCGGCAGAACATCGCGATGGGA
ACCGATGGTGGGTGGGGCTGCAGATGTCCCATCGGTACCTTGTCTCAACTACCTCGCATCATTGCAGATCG
TAGCGCGTTGCCGTGCTGCTTTCCCTTGGATACCTAGACCGTTATAAAGTGTGCCACATGGACTTACCGAGCATGG
AGAGAGGATTTTAGCTAGGATTTGAACACTTGGTGTGTTGGGAACTCAGGGTATTGCTTGCCACTAAGCCATGAAA
CCAGAGACAAAATCTCTATACTGCCCTGAGTTGGGGGGAATCTCAGTGCCAACTGTGGCTGGTCTCATTCAA
GGGACGGTCAGTTTGGTGTCAACATGAAACACCAAGATGTCTGTCTCTGAAGCGTGATTTTAAATCCCCATGCC
TGTGCGTGCGCTTCTATTTCTAGGGCTGGGAAACACTCCTTGATCAAGGGGTCACTTACAGAACAAGAATCT
TTTGGGGGAACTTCTCTAAAACCTCTCATATATAGACAGCTTTGACTGGAGGGTCCATTTTCTTCCAGGAT
GGTGTTACTGCAGTTGAAGGGCAATATGAAGTTACTTCTTAATGTGACCTAGCAATAGGCATAGCTACGTGGCA
CTATATTCTGGCCAGACTCGATGTGTACTCTAACTTAAGAAATAAATCAGTAAGGCAG

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FIGURE 338

MKYILVTGGVISGIGKGIIASSVGTILKSCGLHVTSIKIDPYINIDAGTFSPYEHGEVFLDDGGEVDLDLGNYE
RFLDIRLTKDNNLTGKIYQYVINKERKGDYLGKTVQVPHITDAIQEWVMRQALIPVDEDGLEPQVCVIELGGT
VGDIESMPFIEAFRQFQFKVKRENFNCNIHVSLVPQPSSTGEQTKPTQNSVRELRLGLSPDLVVCRCNSNPLDTS
VKEKISMFCHVEPEQVICVHDVSSIYRVPLLEEQGVVDYFLRRLDLP IERQPRKMLMKWKEMADRYDRLLETCS
IALVAKYTEFSDSYASVIKALEHSALAINHKLEIKYIDSADLEPITSQEEPVRVYHEAWQKLC SAHGVLVPGGFGV
RGTEGKIQAIAWARNQKKPFLGVCLGMQLAVVEFSRNVLGWQDANSTEFDETTSHPVVVDMP EHNPGQMGGTMRL
GKRRTLFQTKNSVMRKLYGDADYLEERHRRFEVNPVWKKCLEEQGLKFVGQDVEGERMEIVELEDHPFFVG VQY
HPEFLSRPIKPSPPYFGLLLASVGRLSHYLQKGCRLSPROTYSDRSGSSSPDSEITELKFPSINH D

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FIGURE 339

CCTGGACTAGCCGGGTGTATTTGGAAACGCGGAGTGAGTTTTTCCGTGCTGTGTAGGGGCTAACAATGGGACACC
CAGAAGGACGTTCAACCTCCAAAGCAGCAACCAATGATATATATCTGTGGAGAGTGTACACAGAAAATGAAATA
AAATCTAGGGATCCAATCAGATGCAGAGAATGTGGATACAGAATAATGTACAAGAAAAGGACTAAAAGATTGGTC
GTTTTTGATGCTCGATTGAATGCTGGGAATTCAGAGGAATGTCTTCACTTATACTTGGATTGCTCTCTTCCCATT
TCTGATTGTTGTATAGCTTTCGATTTTGCTTACAGTAGTTCCCCCTTATCTTCGGGAGATACATTCCAAGGCCCC
CAGTGAACCTCCTGAAACCTCAAACAGTACCAAACCTTTATACACTGTTTTTTCCATATATATATACCTATGATAA
AGTATAATGTATAAAATTAAGCATAGCAAGAGATTAATAATAATGTAATAGAACAATGATAACATACTATAATAAA
AGTTATGTGAATGTG

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FIGURE 340

MDTQKDVQPPKQQPMIYICGECHTENEIKSRDPIRCRECGYRIMYKKRTKRLVVFAR

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FIGURE 341

CTTCGGTCCTGCTGTAGTGCCTTCTGCGCCAGGCCCGGTTCAATCAGCGGCCACAACCTGTCTAGGGCTCAGACAC
CACCAGCCAATGAGGGAGGGCACGTGGAGCCGCGTCTGGGCTCGCGGCTCCTGACCAATGCGGAAGTGGCATGTG
GGAGGGCGCCGGGGTTCCCCCGCCAATGGGGAGCTACGGCGCGCGGCCGGGACTTGGAGGCGGTGCGGCGCGGC
GGGTGCGGTTTCTAGTTCGGTCCGGCGCGGCAGCGGAGGAGGAGGAGGAGGAGGATGAGGAGGATGAGGAGGATG
TGGGCCACGCAGGGGCTGGCGGTGCGCGTGGCTCTGAGCGTGTCTGCCGGGCAGCCGGGCGTGGCGCGGGCGAC
TGCGAAGTTTGTATTTCTTATCTGGGAAGATTTTACCAGGACCTCAAAGACAGAGATGTCACATTCTCACCAGCC
ACTATTGAAAACGAACCTTATAAAGTTCTGCCGGGAAGCAAGAGGCAAAGAGAATCGGTTGTGCTACTATATCGGG
GCCACAGATGATGCAGCCACCAAAATCATCAATGAGGTATCAAAGCCTCTGGCCCCACCACATCCCTGTGGAGAAG
ATCTGTGAGAAGCTTAAGAAGAAGGACAGCCAGATATGTGAGCTTAAGTATGACAAGCAGATCGACCTGAGCACA
GTGGACCTGAAGAAGCTCCGAGTTAAAGAGCTGAAGAAGATTCTGGATGACTGGGGGGAGACATGCAAAGGCTGT
GCAGAAAAGTCTGACTACATCCGGAAGATAAATGAACTGATGCCTAAATATGCCCCCAAGGCAGCCAGTGCACCG
ACCGATTTGTAGTCTGCTCAATCTCTGTTGCACCTGAGGGGGAAAAAACAGTTCAACTGCTTACTCCCAAAACAG
CCTTTTTGTAATTTATTTTTTAAGTGGGCTCCTGACAATACTGTATCAGATGTGAAGCCTGGAGCTTTCCTGATG
ATGCTGGCCCTACAGTACCCCATGAGGGGATTCCCTTCTGTTGCTGGTGTACTCTAGGACTTCAAAGTGT
GTCTGGGATTTTTTTATTAAAGAAAAAAATTTCTAGCTGTCAAAAAAAAAA

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FIGURE 342

MGKWHVGGRRGSPROWGATARGRDLEAVRRGGCGSVGRRRQRRRRRRRRMRMRMRMWATQGLAVRVALSVLPGR
ALRPGDCEVCISYLGRFYQDLKDRDVTFSPTIENELIKFCREARGKENRLCYIIGATDDAATKIINEVSKPLAH
HIPVEKICEKLKKKDSQICELKYDKQIDLSTVDLKKLRVKELKKILDDWGETCKGCAEKSDYIRKINELMPKYAP
KAASAPTDL

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FIGURE 343

CGAGCTGGAGAGGTGGTCGGAGAAGTAGGAACCTCCTGCCGGGCTCGTGGCGGCTTCTGTCCGCTCCGCGGAGGG
AAGCGCCTTCCCCACAGGACATCAATGCAAGCTTGAATAAGAAAACAAATTCTTCCTCCTAAGCCATGGCATAT
CAGTTATACAGAAATACTACTTTGGGAAACAGTCTTCAGGAGAGCCTAGATGAGCTCATACAGTCTCAACAGATC
ACCCCCCAACTTGCCCTTCAAGTTCTACTTCAGTTTGATAAGGCTATAAATGCAGCACTGGCTCAGAGGGTCAGG
AACAGAGTCAATTTCAGGGGCTCTCTAAATACGTACAGATTCTGCGATAATGTGTGGACTTTTGTACTGAATGAT
GTTGAATTCAGAGAGGTGACAGAACTTATTAAAGTGGATAAAGTGAAAATTGTAGCCTGTGATGGTAAAAATACT
GGCTCCAATACTACAGAATGAATAGAAAAAATATGACTTTTTTACACCATCTTCTGTTATTTCATTGCTTTTTGAAG
AGAAGCATAGAAGAGACTTTTTATTATTCTAGAATTGCAGAAATGACTACACTGTGCTATACCAGAGAATTCCA
GTAGAAAGAACTTGTAACCTCTGTAGCCTCTTACATCACCTTTATTATACAGCATGAAAAACCATAACTTTTTTT
TAAGGACAAAAGTTGTTGCCCTTCCTAAGAACCTTCTTTAATAAACTCATTTTAAAACTCTG

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FIGURE 344

MAYQLYRNTTLGNSLQESLDELIQSQQITPQLALQVLLQFDKAINAALAQRVRNRVNFRGSLNTYRFCDNVWTFV
LNDVEFREVTELIKVDKVKIVACDGKNTGSNTTE

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FIGURE 345

GAATTCCCCCCCCCCCCCAGTGCTCCGCGCGCTCTTGACGTCCGGAGCCCTGGAGTAGGCGCTTCCGGCCATT
CATACTGCAGTCGGTCAGTGTTTCGGTTGAAGGATTCTGTGTGCTGTCCGACCCAGAGGGTGACGGCGCCGCTAGG
ATGAAGCTCGTGAGATTTTTGATGAAATTGAGTCATGAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC
CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCCTGAAGAACAGA
GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTCCGGTATTTTATTCTACCAGACAGTTTACCT
CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA
GGAAGAGGAAGAGGAAGAGGACGTGGCCGTGGCAGAGGAAGAGGGGGTCTAGGCGATAATGTCTCTCAAGATTT
CAAAGTCATATGAGATTTGGGATATTTTTGTACAGGTTGTGTTTGTATGTCAGTTTTTAATAAACATAAATG
TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTTAGTAGTTTCTCCACATTCACGAAATTACCACAGTGAGA
GCTAAGCATTCTACTGGGCAGTTTCAATTTTAGTTGATCAGGTTTTAAGTTTTGAACATAAATTTTTCTTTTT
CTTTTTATGATGAATAAGGTTAAATAAAAGCCTTAGACAAATTAAATTTGGCAGAGTTTAATTGAGCAAAGGAC
AATTCACAAATCAGGTAGCCCTGAACCATAATAGGCTCAGAGGCTTCAGCCCAGCTGCATAGTTGAAGATTTAT
GGACAGAAGGAAAGTGATGTATGGAAAATGGAAGTGAGATACAGCAACAGCCGGATTAGTTACAGTTCAGCGTTT
GCCTTATTTGAATATGGTTTGAACAGTTTCGCTGTCTTTGGTTGGCTGAAACTTAGTGATTGCCACAAGAGTAGGG
TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCTATGTACTGAGAAACCTTTAAGCTGAACCTGAGATATGT
AAAGAGACTTTAGGCTAAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACTGAATATGCAT
TTTATTGCTTTACTCTTCATTCGTGGCACCTACCCACAGGGGAAGTAAGAAGTTTGTGTTTGGTATTTTCGGAAAC
TAAAGTCCCTATGGGATGGGGTCTAGAATTGATTCTCTTTCTGAGTTTTACTCCACGGAGTCTTAGGTACCTG
GTAAAAAGTTGTCTTCTAAATTAAGGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTGTCTTTTG
CTTTTTAATCAGTTCCTAATAGGATATAGTTTTATGTTTTCCAGTTATAACTTGGAGTTAATGGTCACTAGATT
ATCAGTTATGAGCAGTGTTAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCCTCCTTTATTAAGGGGTTT
TTTGAGAATAAAAGAGAAAAGACCTACTTTATTTGACAGCAAAAAAAAAAAGGAATTC

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FIGURE 346

MKLVRFLMKLSHETVTIELKNGTQVHGTITGVDVSMNTHLKAVKMTLKNREPQVLETLSIRGNNIRYFILPDSL
LDTLLVDVEPKVSKKREAVAGRGRGRGRGRGRGRGRGRGGPRR

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FIGURE 347

GAGTGGCTGTTGAGCGGCGCCGCGGGAGTTCCGCAGGTTTCCCGTGTTCGCAGCGGAGCCGGAGGCCAGCTGAAC
CCGCGCGTGGGATCCCGGATAGGAGGAGGAGGGGACCCATAGGACGCGTTAAACATGGACCTGGAAAACAAAGTGA
AGAAGATGGGCTTAGGTCACGAGCAAGGATTTGGAGCCCTTGTTTAAATGCAAAGAAAAATGTGAAGGATTTCG
AACTGCACTTCTGGAGAAAAATATGTCGTAAGTCAAGTGTGGCCAAGAAGAGCATGATGTCCTCTTGAGCAATG
AAGAGGATCGAAAAGTGGGAAAACITTTTGAAGACACCAAGTATACCACTCTGATTGCAAAACTAAAGTCAGATG
GAATTTCCCATGTATAAACGCAATGTTATGATATTGACGAATCCAGTTGCTGCCAAGAAGATGTCTCCATCAATA
CAGTTACCTATGAGTGGGCTCCTCCTGTCCAGAATCAAGCATTGGCCAGGCAGTACATGCAGATGCTACCCAAGG
AAAAGCAGCCAGTAGCAGGCTCAGAGGGGGCAGTACCGGAAGAAGCAGCTGGCAAAGCAGCTCCCTGCACATG
ACCAGGACCCCTTCAAAGTGCCATGAGTTGTCTCCAGAGAGGTGAAGGAGATGGAGCAGTTTGTGAAGAAATATA
AGAGCGAAGCTCTGGGAGTAGGAGATGTCAAACITTCCTGTGAGATGGATGCCCCAGGCCCAAAACAAATGAACA
TTCTTGGAGGGGATAGAAGCACCCAGCAGCAGTGGGGGCCATGGAGGACAAATCTGCTGAGCACAAAAGAACTC
AATATTCTGTCTATTGTGCAAACTGAGTATGAAAGAAGGTGACCCAGCCATCTATGCCGAAAGGGCTGGCTATG
ATAAAGTGTGGCACCAGCTTGTTTTGTCTGCAGCACCTGCCATGAACCTCTGGTTGACATGATTTATTTTTGGA
AGAATGAGAAGCTATACTGTGGCAGACATTACTGTGACAGCGAGAAACCCCGATGTGCTGGCTGTGACGAGCTGA
TATTCAGCAATGAGTATACCCAGGCAGAAAACCAGAATTGGCACCTGAAACACTTCTGCTGCTTTGACTGTGATA
GCATTTCTAGCTGGGAGATATACGTGATGGTCAATGACAAGCCCGTGTGCAAGCCCTGCTATGTGAAGAATCACG
CTGTGGTGTGTCAAGGATGCCACAATGCCATCGACCCAGAAGTGCAGCGGGTGACCTATAACAATTTAGCTGGC
ATGCATCCACAGAGTGCTTTCTGTGCTCTTGTCTGCAGCAATGCCTCATTGGGCAGAAGTTTATGCCAGTAGAAG
GGATGGTTTTCTGTTCAGTGAATGTAAGAAGAGGATGTCTTAGGAGGAGGGCACCCAGAAGTATCGAGCCATAG
CTATCCAAAGTGGTCTGCATTTCTACTGTAAATGCAATTTGAAAAAATAAAACGCAAAAAAGAACTGTAAA
GGAAACCAAGAGATTTTGTAAATTTTTTGGCCATTTTTCTTCATCAATTTTTTTTCGGTCTCAACTTTTAAA
CTTGGTTTAAGCATTTGATTTGTAAACAGTAAATAATTGTATCTTTCCATAGCTTTTCAAATGTGAAATCATT
TTGGAAGCTTGGATCTCATTAAACTTCATGTCCTATTCCATTGTGCCACACACTTAAAGTTAGTGTACTGAA
TGGAAGATGAGCATTCTAGTTCTACACTTCTTTTTTCCCTCATGTGTAAATGAAAAGAAACTAAATTTG
CCCTAATACCAAGGGCGCTACGTTTATTGCCTCGTCTTATTCAGTACCTTTGTAATGATACACAGTGAATTCTT
TTTGACAAAGAGAAATGCAGTGTAGTATGCAGAGCTGCTGTTTTAATGCCCTATGCATTTACTCTTCTCTGATTT
AGGCAGAGGTGGCATTCTTTTATTGCATTCTCTATTTTTTAAATGTACCCTACCTTCAGTATTCTCTTTGTAA
GTTGGTGAAGTGCATCTGTGGCCTTGAATATTTTATTATCACATGTGGCATAACAGTATCCACACTTTTGTTC
TTTATTTTTTTTTTTTATTTTGTAGCAATTCCTGCCTCAGCCTCCCAAATAGCTGGGATTACAGGTGCATGCCA
CCACACCCAGCTAATTTTTGTATTTTGTAGTAGAGACAGGTTTTTACCATGTTAGCCAGGCTGGTCTCAAACCTCT
GACCTCAGATGATCCGCTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGGGAGCCACCATGCCTGACCC
ACACACTTTTACTTGTATAGATGATTTTTGGCTTGGACATAAAAGCCAAGCCACCCATTGCTTTTAAATCCAAA
GAACATGTATAGTTTTTGTACCCAGAGACTATGATTTATATTGATTGCACCTGCCTGCCATGATTTAGATAAGAT
TTTTTTTGCATGGTTTTTATTCTTTCTAATGGATCCTGTTTTATAATACTTCCAAGCCTGTCCATGGATATATC
AAATGTCTTCACTTGTATGTTTTCATGGCTAGGTATTTCTAATGTTTATTCTTCCCTGTGTACTTCTACACATAG
CTATGCACTATGAAAATTAATGGAATGAATGATATGTATATTACTCAAATAAAGTTTCTTCACTTTAAAAAA
AAAAAAAAAAAAAA

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FIGURE 348

MDLENKVKKMGLGHEQGFGAPCLKCKEKCCEGFELHFWRKICRNCKCGQEEHDVLLSNEEDRKVGKLFEDTKYTTL
IAKLKSDGIPMYKRNVMLTNPVAAKKNVSINTVTYEWAPPVQNQALARQYMQMLPKEKQPVAGSEGAQYRKKQL
AKQLPAHDQDPSKCHELSPREVKEME QFVKKYKSEALGVGDVKLPCEMDAQGPKQMNI PGGDRSTPAAVGAMEDK
SAEHKRTQYSCYCKLSMKEGDP AIYAERAGYDKLWHPACFVCSTCHELLVDMIYFWKNEKLYCGRHYCDSEKPR
CAGCDELIFSNEYTQAENQNWHLKHFFCFCDCSILAGEIYVMVNDKPVCKPCYVKNHAVVCQGCHNAIDPEVQRV
TYNNFSWHASTECLCSCCSKCLIGQKFMPVEGMVFC SVECKRMS

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FIGURE 349A

GCACITGCTGCTGCCACCGCCGTCGCCGCCGCCGCCGCCGCCGCTGCTGCTGCCGGTGCTAAGGAGTTCGCTGGA
GCCCCITTCCTCAGACCCGCCCGGTCTTCGCGCCCGGACTCCTGGCGCCAGCGCTAGGCGCACTACCGCTCTGA
CGGGTGACAGACCGGGGAGTTGTCCAGACTGTGGAGTGGCGGGCACGGCCCCAGCCCCCTTCCCTTCCCTGACC
CCTTCTTGCCATCGCCCCAGACATGGGGAACGCGCGACCGCCAAGAAAGGCAGCGAGGTGGAGAGCGTGAAAGA
GTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAATGGGAGAATCCAACCTCAGAATAATGCCGGACTTGAAGA
TTTTGAAAGGAAAAAACCCCTTGAACAGGTTTCATTGGAAGAGTCATGTTGGTAAACACAAAGCCACTGAACA
GTATTATGCCATGAAGATCTTAGATAAGCAGAAGTTGTTAAACTGAAGCAAATAGAGCATACTTTGAATGAGAA
AAGAATATTACAGGCAGTGAATTTTCTTTCTTGTTCGACTGGAGTATGCTTTTAAGGATAATTCTAATTTATA
CATGGTTATGGAATATGTCCCTGGGGGTGAAATGTTTTCACATCTAAGAAGAATTGGAAGGTTTCAGTGAGCCCCA
TGCACGGTTTCTATGCAGCTCAGATAGTGCTAACATTTCGAGTACCTCCATTCTACTAGACCTCATCTACAGAGATCT
AAAACCTGAAATCTCTTAATTGACCATCAAGGCTATATCCAGGTCACAGACTTTGGGTTTGCCAAAAGAGTTAA
AGGCAGAACTTGGACATTATGTGGAACCTCAGAGTATTGGGCTCCAGAAATAATTCTCAGCAAGGGCTACAATAA
GGCAGTGGATTGGTGGGCATTAGGAGTGCTAATCTATGAAATGGCAGCTGGCTATCCCCATTCTTTGCAGACCA
ACCAATTCAGATTTATGAAAAGATTGTTTCTGAAAGGTCCGATTCCCATCCCACTTCAGTTCAGATCTCAAGGA
CCTTCTACGGAACCTGCTGCAGGTGGATTGACCAAGAGATTGGAATCTAAAGAATGGTGTGAGTATATAAAA
AACTCACAAGTGGTTTGCCACGACAGATTGGATTGCTATTTACCAGAGGAAGGTTGAAGCTCCATTCTACCCAAA
GTTTAGAGGCTCTGGAGATAACCAGCAACTTTGATGACTATGAAGAAGAAGATATCCGTGTCTCTATAACAGAAAA
ATGTGCAAAAGAATTTGGTGAATTTTAAAGAGGAACAAGATGACATCTGAGCTCACACTCAGTGTTCGACTCTG
TTGAGAGATAAGGTAGAGCTGAGACCGTCTTGTGGAAGCAGTTACCTAGTTCCTTCATTCCAACGACTGAGTGA
GGTCTTTATTGCCATCATCCCGTGTGCGCACTCTGCATCCACCTATGTAACAAGGCACCGCTAAGCAAGCATTGT
CTGTGCCATAACACAGTACTAGACCCTTTCTTACTTCTCTTTGGGTTGTCTTTCTCTCTCTACATCCATTTC
TTCTTTTCCAAATTTTCATTGGTTTTCTCTAAACAGTGCTCCATTTTATTTTGTGGTGTTCAGATGGGCAGTGT
TATGGCTACGTGATATTGAAGGGAAGGATAAGTGTGCTTTCAGTAGTTATTGCCAATATTGTTGTTGGTCAAT
GGCTTGAAGATAAACTTTCTAATAATTATTATTTCTTTGAGTAGCTCAGACTTGGTTTTGCCAAAACCTCTTGGTA
ATTTTTGAAGATAGACTGTCTTATCACCAGGAAATTTATACAAATTAAGACTAACTTTCTTGAATTCATATT
CTGGCAATAAAATTTTGGTAGACTAATACAGTACAGCTAGACCCAGAAATTTGGAAGGCTGTAGATCAGAGGTTCT
AGTTCCCTTTCCCTCCTTTTATATCCTCCTCTCCTTGAGTAATGAAGTGACCAGCCTGTGTAGTGTGACAAACGT
GTCTCATTACAGCAGGAAAACTAATGATATGGATCATCACCAGATTCTCTCACTTGGTACCAGCATTCTGTAG
GTATTAGAGAAGAGTTCTAAGTTTTCTAAACCTTAAGTGTCTTAAGGATTTTAGCCAGTATTTAATAGAACA
TGATTAATGAAAGTGACAAATTTTAAATTTTCTCTAATAGTCTCATATAACTTTTTAAAGGAAAAATAAGCAA
ACTAAAAAGAACATTGGTTTAGATAAATACTTATACTTTGCAAAGTCAAAAATGGCTTGATTTTTGGAACAATA
TAGAGGTATTCTATTTAATGAGGGTTTACATTGTTTTGTTTTGTAACCGTTAAAAAGAAGTTGTTTCCAGCT
AATTATTGGTGTACTATATTGTGAGCCTAGGGTAGGGGCACTGCTGCAACTCTGCTTTTCAATCCATGCCTC
ATCAATGAGGAAAGGGAACAAAGTGATAAACTGCCACAATTGTATTTAATTTTGAAGGTATGATTTTCAGA
TATTTCTAATTTCTAACCTCTGTTCTCTCAGTAAACAGAATGTCTGATCGATCATGCAGATACAATGTTGGTAT
TTGAGAGGTAGTTTTTTTCTACACTTTTTTTTGCCAACTGACTTAACAACATTGCTGTGAGGTGGAATTTCA
AGCACTTTTGCACATTTAGTTCAGTGTGTTGTTGAGAATCCATGGCTTAACCCACTGTTTTGCTATTTTTTCTT
TGCTTTTAATTTTCCCATCTGATTTTATCTCTGCGTTTCAGTGACCTACCTTAAACAACACACGAGAAGAGTT
AAACTGGGTTCAATTTAATGATCAATTTACCTGCATATAAAATTTATTTTAAATCAAGCTGATCTTAATGTATAT
AATCATTCTATTTGCTTTATTATCGGTGCAGGTAGGTCAATTAACACCACTTCTTTTCTGTGACCAACCCCTGG
TGAAACCTTTGAAGACATAAAAAAACCTGTCTGAGATGTTCTTTCTACCAATCTATATGCTTTTGGTTATCAA
GTGTTTCTGCATGGTAATGTCATGTAAATGCTGATATTGATTTCACTGGTCCATCTATATTTAAACGTCGAAGA
AAAAAATAAAATACTCTGCTCTAGCAAGTTTTGTGTAACAAAGGCATATCGTCATGTTAATAAATTTAAACATC
ATTCGTATAAAATATTTAATTTTCTTGTATTTCAATTAGACCCAAGAACATGCTGACCAATGTGTTCTATATGT
AAACTACAAATTTCTATGGTAGCTTGTGTATATTATGTAATTTATTTAATAAGTCATGGGGATGACAATTT
GATTATTACAATTTAGTTTTAGTAATCAAAAAGATTCTATGAATCTAAAAAATATTTTTTCTATGAAATTA
CTAGTGCCAGCTGTAGAATCTACCTTAGGTAGATATCCCTAGACATACGTTGGTTTTGAGGGCTATTACGCCA
TTCCATTTTACTCTCTATTTAAAGGCCGTGAGCAAGCTTGTATGAGCAATATGTCAAGGGAGTCAATTTCTGA

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FIGURE 349B

CCAATCAAGTACACTAAATTAGAATATTTTTAAAGTATGTAACATTCCCAGTTTCAGCCACAATTTAGCCAAGAA
TAAGATAAAAACTTGAATAAGAAGTAAGTAGCATAAATCAGTATTTAACCTAAAATTACATATTTGAAACAGAAG
ATATTATGTTATGCTCAGTAAATAATTAAGAGATGGCATTGTGTAAGAAGGAGCCCTAGACTGAAAGTCAAGACA
TCTGAATTCAGGCTGGAAACTATCAGTATGATCTCAGCCTCAGTTCTTGTCTGTAAATGGAAGAACTGGA
TTAGGCAGTTTGTAAGATTCCTCCTAACTTTCACAGTCGATGACAAGATTGTCTTTTTATCTGATATTTTGAAGG
GTATATTGCTTTGAAGTAAGTCTCAATAAGGCAATATATTTTAGGGCATCTTTCTTCTTATCTCTGACAGTGTTT
TTAAAATTATTTGAATATCATAAGAGCCTTGGTGTCTGTCTAATTCTTTCTCACTCACCGATGCTGAATACCC
AGTTGAATCAAACGTCAACCTACCAAAAACGATATTGTGGCTTATGGGTATTGCTGTCTCATTCTTGGTATATT
CTTGTGTAACTGCCATTGGCCTGAAAATACTCATTGTAAGCCTGAAAAAAAAATCTTTCCCACTGTTTTTTC
TGCTTGTGTAAGAATCAAATGAAATAATGTATGTGAAAGCACCTTGTAACCTGTAACCTATCAATGTAAAATGT
TAAGGTGTGTGTTATTTCAATTAATTACTTCTTTGTTTAGAATGGAATTCCTATGCACTACTGTAGCTAGGAAA
TGCTGAAAACAACGTGTGTTTTTAATTAATCAATAACTGCAAAATTAAAGTACCTTCAATGGATAAGCCAAAAA
ATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCAGGAATTCGATATCAGCTTATCATACC

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FIGURE 350

HCCCHRRRRRAAAPLLLPVLRSSLEFPFQTRPGLRARTPGASARRTHRS DGCRRGSCPRLWSGGHGPSPPSLPXP
LLAIAPDMGNAATAKKGSEVESVKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKT LTGTGSFGRVMLVKHKATEQ
YYAMKILDQKVVKLKQIEHTLNEKRILQAVNFPFLVRLEYAFKDNSNLYMMEYVPGGEMFSLRRIGRFSEPH
ARFYAAQIVLTFEYLSLDLIYRDLKPENLLIDHQGYIQVTDGFAKRVKGRTWTLCGTPEYLAPEIILSKGYNK
AVDWWALGVLIYEMAAGYPFFADQPIQIYEKIVSGKVRFP SHFSSDLKDLLRNLLQVDLTKRFGNLKNGVSDIK
THKWFATTDWIAIYQRKVEAPFIPKFRGSGDTSNFDDYEEEDIRV SITEKCAKEFGEF

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FIGURE 351

CCAGCCCCCTTCCCTTCCCTGACCCCTTCTTGCCATCGCCCCAGACATGGGGAACGCGGCGACCGCCAAGAAAG
GCAGCGAGGTGGAGAGCGTGAAAGAGTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAATGGGAGAATCCAA
CTCAGAATAATGCCGACTTGAAGATTTTGAAAGGAAAAAACCCCTGGAACAGGTTTCATTTGGAAGAGTCATGT
TGGTAAACACAAAGCCACTGAACAGTATTATGCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAACTGAAGC
AAATAGAGCATACTTTGAATGAGAAAAGAATATTACAGGCAGTGAATTTTCCTTTCTTGTTCGACTGGAGTATG
CTTTAAGGATAATTCTAATTTATACATGGTTATGGAATATGTCCCTGGGGGTGAAATGTTTTACATCTAAGAA
GAATTGGAAGGTTTCAGTGAGCCCCATGCACGGTTCTATGCAGCTCAGATAGTGCTAACATTTCGAGTACCTCCATT
CACTAGACCTCATCTACAGAGATCTAAAACCTGAAAATCTCTTAATTGACCATCAAGGCTATATCCAGGTCACAG
ACTTTGGGTTTGCCAAAAGAGTTAAAGGCAGAACTTGGACATTATGTGGAACCTCAGAGTATTGGCTCCAGAAA
TAATTTCTAGCAAGGGCTACAATAAGGCAGTGGATTGGTGGGCATTAGGAGTGCTAATCTATGAAATGGCAGCTG
GCTATCCCCCATTTCTTTGAGACCAACCAATTCAGATTTATGAAAAGATTGTTCTGGAAAGGTCGGATTCCCAT
CCCCTTCAGTTCAGATCTCAAGGACCTTCTACGGAACCTGCTGCAGGTGGATTGACCAAGAGATTGGAAATC
TAAAGAAATGGTGTCACTGATATAAAAACTCACAAGTGGTTTGCCACGACAGATTGGATTGCTATTACCAGAGGA
AGGTTGAAGCTCCATTACACAAAGTTTAGAGGCTCTGGAGATACCAGCAACTTTGATGACTATGAAGAAGAAG
ATATCCGTGTCTCTATAACAGAAAAATGTGCAAAAAGAAATTTGGTGAATTTTAAAGAGGAACAAGATGACATCTGA
GCTCACACTCAGTGTGTTGCACTCTGTTGAGAGATAAGGTAGAGCTGAGACCGTCTTGTGTAAGCAGTTACCTAG
TTCTTTTCATTCCAACGACTGAGTGAGGTCTTTATTGCCATCATCCGTGTGCGCACTCTGCATCCACCTATGTAAC
AAGGCACCGCTAAGCAAGCATTGTCTGTGCCATAACACAGTACTAGACCACCTTTCTTACTTCTCTTTGGGTTGTC
TTTCTCTCTCTCTACATCCATTCTTCTCTTTTCAATTTTCATTGGTTTTCTCTAAACAGTGCTCCATTTTATTTTG
TTGGTGTGTTTCAGTGGGCAGTGTATGGCTACGTGATATTTGAAGGGAAGGATAAGTGTGCTTTTCAGTAGTTAT
TGCCAATATTGTGTTGGTCAATGGCTTGAAGATAAACTTTCTAATAATTATTATTCTTTGAGTAGCTCAGACT
TGGTTTTTGCCAAAACCTCTTGGTAATTTTTGAAGATAGACTGTCTTATCACCAGGAAATTTATACAAATTAAGAC
TAACCTTTCTTGAATTCATCTTCTGGCAATAAATTTTGGTAGACTAATACAGTACAGCTAGACCCAGAAATTTG
GAAGGCTGTAGATCAGAGGTTCTAGTTCCTTTCCCTCCTTTTATATCCTCCTCTCCTTGAGTAATGAAGTGACC
AGCCTGTGTAGTGTGACAAACGTGTCTCATTACAGCAGGAAAACTAATGATATGGATCATCACCAGATTCTCTC
ACTTGGTACCAGCATTCTGTAGGTATTAGAGAAGAGTTCTAAGTTTTCTAAACCTTAAGTTCCTTAAGGATT
TTAGCCAGTATTTTAATAGAACATGATTAATGAAAGTGACAAATTTAAATTTTCTCTAATAGTCTCATCATAA
ACTTTTTAAAGGAAAAATAAGCAAACTAAAAAGAACATTGGTTTAGATAAAATACTTATACTTTGCAAAGTCAAAAA
TGGCTTGATTTTGGAAACAATATAGAGGTATTCATATTTAAATGAGGGTTTACATTTGTTTTGTTTTGTAAACCG
TTAAAAAGAAGTTGTTTCCAGCTAATTATTGTGGTGTACTATATTTGTGAGCCTAGGGTAGGGGCACTGCTGCAA
CTTCTGCTTTTCATCCCATGCCTCATCAATGAGGAAAGGGAACAAAGTGATAAAACCTGCCACAATTGTATTTTA
ATTTTGAGGTATGATATTTTCAGATATTTTCATAATTTCTAACCTCTGTTCTCTCAGTAAACAGAATGTCTGATCG
ATCATGCAGATACAATGTTGGTATTTGAGAGGTTAGTTTTTTTCTACACTTTTTTTTGCCAACTGACTTAACAA
CATTGCTGTGAGGTGGAATTTCAAGCACTTTTGCACATTTAGTTCAGTGTGTTGTTGAGAATCCATGGCTTAACC
CACTTGTGTTTTGCTATTTTTTTCTTTGCTTTTAAATTTCCCATCTGATTTTATCTCTGCGTTTCAGTGACCTACC
TTAAAAACAACACACGAGAAGAGTTAACTGGGTTTCATTTTAAATGATCAATTTACCTGCATATAAAATTTATTTT
AATCAAGCTGATCTTAATGTATATAATCATTCTATTTGCTTTATTATCGGTGCAGGTAGGTCAATTAACACCCTT
CTTTTCATCTGTACCACACCCTGGTGAAACCTTTGAAGACATAAAAAAAACCTGTCTGAGATGTTCTTTCTACCA
ATCTATATGTCTTTCCGTTATCAAGTGTCTGTCATGGTAATGTCATGTAAATGCTGATATTGATTTCACTGGTC
CATCTATATTTAAACGTGC

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FIGURE 352

MGNAATAKKGSEVESVKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKT LGTGSFGRVMLVKHKATEQYYAMKIL
DKQKVVKLKQIEHTLNEKRILQAVNFPFLVRLEYAFKDNSNLYMVMMEYVPGGEMF SHLRRIGRFSEPHARFYAAQ
IVLTFEYLHSLDLIYRDLKPENLLIDHQGYIQVTDGFGAKRVKGRTWTL CGTPEYLAPEIILSKGYNKAVDWWAL
GVLIYEMAAGYPFFADQPIQIYEKIVSGKVRFP SHFSSDLKDLLRNLLQVDLTKRFGNLKNGVSDIKTHKWFAT
TDWIAIYQRKVEAPFIPKFRGSGDTSNFDDYEEEDIRVSITEKCAKEFGEF

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FIGURE 353A

CCCCGGCGAGCCCGCGTGCACAGCTCTGCCCGCCGCCCTGGAGCGGATCCCCAGCCGTCCCTGGGCGTTCT
CCCCGGTTCTAGCAAAGCCCCCGGGTGCCATCAGTTTCCTTGGGTGACTACAGCGTGTGTTTTTCTTTCTCT
CTTTCCCTGCTGTGTGCCCTTCTCCAGGATGGCAGAGGCGGAATTGCACAAGGAAAGGCTGCAAGCCATAGCA
GAAAAAAGAAAGAGGCAGACTGAAATAGAAGGCAAGCGACAACAGCTTGACGAGCAGATACTTCTGCTGCAGCAT
TCCAAGTCCAAAGTGCTTCGGGAGAAATGGCTGCTGCAGGGCATAACCGCTGGAAGTCCGAAGAGGAGGAAGCC
AGGAGGCGCGCAGTCTGAAGAGGATGAGTTCAGAGTCAAGCAACTTGAAGATAACATTTCAGAGGCTGGAGCAAGAA
ATACAAACGCTAGAAAGTGAAGAGTCCAGATATCTGCCAAAGAGCAAATCATCCTAGAGAACTGAAGGAAACA
GAAAAATCCTTCAAGGACTTTTCAGAGGGTTTCTCCAGTACGGATGGAGATGCAGTAAATTACATTTCTCCAG
CTTCCCGACCTGCCAATCCTCTGTTACGAACAGCAGAACCATCACCTGGGCAGGACGGGACCAGCAGAGCGGCT
GGAGTGGGTGGGAGAATGTGCTGCTAAAGGAAGGTGAGTCAGCCTCGAACGCCACAGAAACATCCGGCCCAGAC
ATGACTATCAAGAAGCCTCCCCAGCTTCTGAGGATGATATCTGGCTAAAAAGCGAGGGAGACAACATATAGTGCC
ACCTCTGGAGCCTGCTGCCAGCTCTTTTCCCCAGATCACAACAAACATGGAAATTGAGGTGTCTGTTGCAGAA
TGAAAAAGTGTTCCTGGAATCACCTTACCCACATCCCATGGACCATCCCTCCGCTTTTCTATTACCCCCGCAT
AATGGCCTCCTTACTGATCACCACGAATCCCTGGATAATGATGTTGCCAGAGAGATCCGCTATCTAGATGAGGTG
CTAGAGGCCAATGCTGTGATTCTGCTGTGGATGGAACGTACAATGGAACATCCTCCCCAGAGCCTGGTGCAGTG
GTTCTGGTGGGCGGCTAAGCCCCCCTGTCCACGAGGCGACCCAGCCAGAACCCACTGAAAGAACAGCTAGCCGG
CAGGCACCTCCTCACATCGAGCTCAGTAATAGCAGCCCTGACCCCATGGCAGAGGCAGAAAGAACAAATGGCCAT
TCCCCAGCCAGCCTAGAGATGCGCTGGGGGACAGCCTGCAGGTGCCTGTGACCCCGCTCCACAACAGCTCA
CGGTGTTCTTCCCGAGATGGAGAGTTCACTCTCACCACACTGAAAAAGGAGGCCAAGTTTGAGCTGCGTGCCTTC
CATGAGGACAAGAAGCCCTCCAAGCTCTTTGAGGATGACGAGCATGAGAAAGAACAACTGCAATAGAAAAGTG
AGGCCTTCAGAGGAGATGCTGGAGCTGGAAGAGGAGAGAGAGCTCATCCGCAGCCAGGCGCTCAAGAAGAAT
CCTGGCATTGCAGCAAAATGGTGAATCCCCCGCAGGAAAAAACCATCGAGGAGCAGCTGGACGAGGAACATCTG
GAGTCGCACAAAAAGTACAAGGAGCGCAAGAGAGAAGGGCACAGCAGGAACAGTTGCTGCTGCAGAAGCAGTTA
CAGCAGCAGCAGCAGCAGCCCCATCGCAGCTCTGCACAGCCCTGCCTCTTCTCATGAACGCGCAAGCATGATT
GACAAAGCAAAGGAGGACATTGTACAGAGCAGATAGATTTCTGCTGCTCGCAACAATTTTCAGCTGATGGAG
AATTCCAGGCAAGCGGTGGCCAAGGGCCAGAGTACACCCAGGCTGTTCTCCATCAAGCCTTTCTACAGGCCTCTG
GGGTGAGTCAACTCAGACAAGCCACTGACTAATCCGAGACCACCTTCTGTCGGGGGACCTCCAGAAGACAGTGGT
GCCTCAGCCGCCAAGGGACAGAAATCCCCCGGTGCCCTGGAGACCCCATCGGCAGCAGGAAGCCAGGGCAACACA
GCCTCTCAGGGGAAGGAAGGGCCCTACAGCGAGCCTTCTAAACGTGGGCCCTTATCTAACTGTGGGCTGAGGAT
GGAGAATTTACGAGCGCCCGGCTGTCTCTACTGTGGTCAAGGATGATGACCATGGGATTTTGGATCAGTTCTCA
AGATCTGTCAATGTCTCCTTGACCCAAGAGGAGCTTGAATCTGGTCTGGACGAATTGTGCGGTGAGGTCTCAGGAT
ACCACAGTCTGGAGACCCTATCCAATGATTTTCAGCATGGACAACATCAGTGACAGCGGGGCATCCAATGAGACA
ACCAATGCCCTCCAGGAAAATTCAGTGGCTGATTTTCTCTGCCCCAGACACCACAACTGACAACCCCTCAGAG
GGCCGAGGAGAAGGCGTCTCCAAGTCATTTAGTGATCATGGTTTCTATTCCCTTCTCCACGCTGGGGGACTCT
CCGTTGGTTGATGACCCCTTGGAGTATCAGGCTGGCCTCCTGGTGCAAGTCCATTCAACAAGCCATAGCCGAG
CAGGTGGATAAAGCTGTGTCCAAAACAGCAGGGATGGAGCAGAGCAACAGGGACCTGAAGCGACTGTAGAGGAA
GCTGAAGCTGCGGCTTTCGGCTCAGAAAAGCCTCAGAGCATGTTTGAGCCACCTCAGGTGTCTTCTCCTGTCAA
GAGAAAAGGGATGTATTACCAAAGATTCTGCCTGCTGAAGACAGGGCGCTCAGGGAAAGGGGGCCCCCCAGCCA
CTGCCAGCTGTGCAGCCCAGTGGCCCGATTAAACATGGAGGAGACCAGGCCCGAAGGAAGCTATTTTCAGCAAGTAC
TCGGAGGCAGCTGAGCTGAGAAGCACAGCCTCCCTCCTGGCCACTCAAGAATCTGACGTGATGGTTGGGCCTTTC
AAGCTGAGGTCCAGGAAACAGCGGACTTTGTCCATGATTGAGGAAGAGATCCGAGCAGCTCAGGAAAGGGAAGAG
GAGCTGAAGAGGCAGAGACAAGTCTTGACAGGTACGCAGAGCCCCAGGACAAAGAATGCCCATCACTGCCCTCC
AGAACATGCTACAAAATGCTCCAGGGAAAATAGAGAAAGTCAAACCTCCTCCATCCCCCACCCTGAAGGCCCC
AGCTTGACAGCCTGACTTAGCCCCGAAGAGGCTGCCGGAACCCAGCGGCCCAAGAATCTGATGCAGACCCTCATG
GAAGACTATGAGACACACAAATCTAAAAGGCGCGAGAGAATGGATGATAGTAGTTACTTCTAAGTTACTGTCT
TGCAAGGTGACTTCCGAGGTCTCGAGGCCACACGGTTAATCGAAGAAAGAGCGCACTGGCTTTGCGCTGGGAA
GCAGGGATCTATGCCAACAGGAGGAAGAAGACAACGAATAAATCCTTCAACCCAGGAAGCGTCTTTGGTGCT
TGGGAGACCAAGAAACCAAGAAATTAACAACCTGAAAGCATTTTAATGGACTATTTATTAAGTGCAACAACTC

[illegible]

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FIGURE 353C

TGAATATATTCCATTTTAGTTAAAGAACAAATTCCTGAATTTAAGCATTTCAGTGAGCTGCCAATTTTGATTTT
GTGTTGCTCITTACCCAAATTATTTTTCTTTGTTTTCTTTTTTGGGGGAGGAGGGGAAAAAGCAGCAATAC
TGTGTTTGAAATTATACTCTGTATCTGGTTTTCTGTGTATGTTAACCCTTAAATGTTATTATCCTGCTTTGG
TTTAGAGTGATTGTGAGGCATTCATGCAAGTATACAGTTATTTCTCATTAAATCCAATGTGTGTTGAGTTT
TTATAAAAAAAAAAAAAAAAAA

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FIGURE 354

MAEAE LHKERLQAIAEKRRQTEIEGKRQQLDEQILLQHSSKVLREKWLLQGIPAGTAE EEEARRRQSEEDF
RVKQLEDNIQRLEQEIQTLESEESQISAKEQIILEKLEKTEKSFKDFQKGFSSDGDVANYISSQLPDLPILC SR
TAEFSPGQDGT SRAAGVGVENVLLKEGESASNATETSGPDMTIKKPPQLSEDDIWLKSEGDNY SATLLEPAASSL
SPDHKNMEIEVSVAECKSVPGITSTPHPMDHPSAFYSPPHNGLLTDHHESLDNDVAREIRYLDEVLEANCCDSAV
DGTNGTSSPEPGAVVLVGGLSPPVHEATQPEPTERTASRQAPPHIELSNSSPDMAEAERTNGHSPSQPRDALG
DSLQVPVSPSSTTSSRCSSRDGEFTLTTLKKEAKFELRAFHEDKKPSKLFEDDEHEKEQYCIRKVRPSEEMLELE
KERRELIRSQAVKKNP GIAAKWNNPPQEKTIEEQLD EEHLESHKKYKERKERRAQEQ LLLQKQLQQQQQQPPSQ
LCTAPASSHERAS MIDKAKEDIVTEQIDFSAARKQFQLMENSRQAVAKGQSTPRLFSIKPFYRPLGSVNSDKPLT
NRPSPSVGGPPEDSGASAAKGQKSPGALETPSAAGSQGNTASQGKEGPYSEPSKRGPLSKLWAEDGEFTSARAVL
TVVKDDDHGILDQFSRSVNVSLTQEELDSGLDELSVRSQDITVLETLSNDFSMDNISDSGASNETTNALQENSLA
DFSLPQTPQTDNPSEGRGEGVSKSFSDHGFYSPSSTLGDSPLVDDPLEYQAGLLVQNAIQQAIAEQVDKAVSKTS
RDGAEQQGPEATVEEEAEAAAFGSEK PQSMFEPQVSSPVQEKRDVLPKILPAEDRALRERGPPLPAVQPSGPI
NMEETREPGSYFSKYSEAAELRSTASLLATQESDVMVGPFKLRSRKQRTLSMIEEEIRAAQEREEELKRQRQVLQ
STQSPRTKNAPSLPSRTCYTAPGKIEKVPPPSPTTEGPSLQPDLAPEEAAGTQRPKNLMQITLMEDYETHKSKR
RERMDDSSYTSKLLSCKVTSEVLEATRNVNRRKSALALRWEAGIYANQEEEDNE

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FIGURE 355

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCGGCCGGCCGCAGCCATGAACTCCAACGTGG
AGAACCTACCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCAGCTCCAGGTCACCATCGAGGGCCCTGAGGGGACCCCATATG
CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
AGCTGGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
AGGAGGCGGGCCGCTGCTCTTGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
GGGGCGCCGGCGGGCCAGCGGCAGGGCCGAAGCCGGTGGGGCCCTGGCCAGTGGCACTGAAGCTTCCTCCACCG
ACCCTGGGGCCCCAGGGGGCCCGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGGCGCTGCGGCGGCTGTAGTGGGCTCTCTTCC
TCCTTCCACCGTGACCCCAACCTCTCCTGTCCCTCCCTCCAACCTCTGTCTTAAGTTATTAAATTATGGCTGG
GGTCGGGGAGGGTACAGGGGGCACTGGGACCTGGATTGTTTTTCTAAATAAAGTTGGAAAAGCA

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FIGURE 356

MNSNVENLPPHIIRLVYKEVTTLTADPPDGIKVPNEEDLTDLQVTIEGPEGTPYAGGLFRMKLLLGKDFPASPP
KGYFLTKIFHPNVGANGEICVNVLKRDWTAELGIRHVLLTIKCLLIHPNPESALNEEAGRLLLENYEEYAARARL
LTEIHGGAGGPGSGRAEAGRALASGTEASSTDPGAPGGPGGAEGPMAKKHAGERDKKLAAKKTDKKRALRALRRL

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FIGURE 357A

TCGGAGTGCCGCCCCGCGCCCCGAGTCGGTCTCGAGCCGCCGCGCGCGGTGCCGGTGTCCTAGGCGCTGCGCC
CTCGGCCGGGCCCCATGTGTGTGCGGCCCGCCCCGAGGCCGCCCGGGCTTTGCCTCCACCAGCGCCCTGGCCTCCGC
TCGGGCTCCACACGGGCTCCGAAGAGCTGCCGCGACGCCCGGCCCGCAGGGCAGGTAAGAGATTATAAATCT
TCCACTGAATGAAAAAATTTTCTTAAAGCTGCATATACTCCAAGAAAAAACCAAAATGTTTTCTGTTTTGC
CTGAATACATGATTTAAACAAGAGATTTCACAGAAGCTCTGCGGCCGTACGATGTTCTGGAAGTTTGACTTGA
ACACCACGTCCCATGTTGACAAGCTGCTGGACAAGGAGCATGTGACGCTGCAGGAGTTAATGGATGAAGATGACA
TCTTGACAGGAGTGTAAGGCTCAGAACCAGAAGCTGCTGGACTTCTGTGCAGGCAGCAGTGCATGGAGGAGCTGG
TGAGCCTCATCACACAGGATCCGCCCTGGACATGGAGGAGAAGGTCCGCTTCAAATATCCAAACACAGCCTGTG
AGCTTCTGACTTGTGATGTGCCGAGATCAGCGACCGCCTCGGTGGGGACGAGAGCCTGCTGAGCCTCCTGTACG
ACTTCTTGAGACATGAGCCGCTCTCAATCCTCTGCTCGCCAGTTTTTTTTCAGCAAGACCATTGGCAATCTCATTG
CAAGAAAAACCGAACAGGTGATTACGTTTTTGAAGAAGAAGGACAAGTTCATCAGCCTGGTGTGAAGCACATCG
GCACCTCAGCGCTTATGGACCTGCTGCTGCGCCTGGTACGCTGTGTGGAGCCAGCCGGGCTCCGGCAGGACGTCC
TGCACCTGGCTGAATGAAGAGAAGGTATCCAGAGGCTTGTGGAGTTGATCCACCCGAGCCAGGATGAAGATAGGC
AGTCAAAATGCTTCTCAGACTCTCTGTGACATAGTTAGGCTGGGCAGAGACCAGGGCAGTACGCTGCAAGAGGCTC
TGGAGCCAGACCCGCTCCTCACAGCGCTGGAGTCGAGGACTGTGTGGAGCAGCTTCTGAAGAACATGTTTGATG
GAGACCGGACGGAGAGCTGCCCTGCTCAGTGGGACTCAGGTGTTACTCACCTTGTGGAACCAGGCGGGTTGGGA
CAGAGGGCTTGGTGGACTCCTTTTCTCAGGGACTGGAAGGTATACGCTGTGAGCAGCAGCTACTACACGGCA
TCGAGCCTCGGCTGAAGGACTTCCACCAGCTCCTGCTCAACCCGCCCAAGAAGAAAGCGATCCTGACCACCATG
GTGTGCTGGAGGAGCCCCGTTGGGAATGCCGCTGTGATGGCGCCCGCCTCATGGCAGCACTGCTGCACACAAACA
CACCCAGCATCAACCAGGAGCTCTGCCGGCTCAACACGATGGACTTACTGCTGGACTTGTCTTTAAGTACACCT
GGAATAACTTTTTGCACCTTCAAGTGGAATATGCATAGCCGCTATTCTCTCCACGCTGCCCGTGAGGAGAGGA
CAGAAGCCAGCGATCCGAGAGCAGGGTGGAGCCTCCGATGAGAACGGGAACCGGAGCCTGGAGACTCCCCAGC
CGGCCGCCAGCCTCCTGACAACACAATGGTGACCCACCTGTTCCAGAAGTGTGCTGCTGGTGCAGAGGATCCTGG
AGGCTTGGGAAGCCAACGACCACACGACGAGGAGCGGGTGGCATGAGACGTGGGAACATGGGCCACCTCACACGGA
TCGCCAACCGGTGGTGCAGAACCTGGAGCGGGGCCCTGTGCAGACGCACATCAGCGAGGTATCCGAGGGCTCC
CTGCCGACTGCCGTGGCGCTGGGAGAGCTTCGTGGAGGAGACGCTGACGGAGACGAACCGCAGGAACACTGTGG
ACCTGGCCTTCTCTGACTACCAGATCCAGCAGATGACAGCCAACTTCGTGGATCAGTTTGGCTTCAATGATGAGG
AGTTTGCCGACCAGGACGACAACATCAATGCCCGTTTTGACAGGATCGCAGAGATCAACTTCAACATCGACGCTG
ACGAGGACAGTCCCAGCGCAGCTCTGTTTGAGGCCTGCTGCAGTGACCGCATCCAGCCCTTTGATGATGATGAGG
ACGAGGACATCTGGGAGGACAGTGACACTCGCTGTGCTGCCCGGGTGATGGCCAGACCCAGGTTTGGAGCCCCC
ATGCTTCAGAGAGTTGCTCAAGAATGGCCCAGAGCGTGGAGGCCAGGATGGGAAGGCGAGCTTGAAGCACACA
GAGATGCACCTGGGGCAGGTGCCCCACCGCCCCCGGGAAGAAGGAAGCCCCCTGTGGAGGGTGACTCAGAAG
CAGGCGCCATGTGGACGGCAGTGTGATGAGCCAGCGAACTCAACGCCACAGCCCCAGGAGTGGTGGAGGACG
TGGGTTCCAGTGTGTGGGACGCTGGCACCTCAGCTCCAGAGGAGAAAGGCTGGGCCAAGTTCACTGACTTCCAAC
CTTCTGCTGCTCCGAGTCAGGGCCAGGTGCAGCTCTCCGTTGGACACAGAATGCAGCCATGCTGAGGGCAGCC
GGAGCCAAGGCCCTGAGAAAGCCTTCAGCCCGGCTTCTCCATGTGCTGGAACGTGTGTGTCACCAGGAAGGCC
CCCTGCTGGCCTCTGACAGTAGCTCCTCTGGGGGCTCCACAGCGAGGATGGCGACCAGAAGGCAGCGAGTGCCA
TGGATGCGGTGAGCAGGGGTCCCGGCCGGGAGGCCCCCGCTGCCACAGTGGCCAGGACAGAGGAGGCGGTG
GCAGGGTCGGGTGTGCTGACAGCCGCTGTTAAGCCCTGCCTGCCCGCGCCAAAGGAAGTGAAGTGTGCCCCAG
CCGTGGCTGTGCCCCCGAGGCTACTGTGGCCATCACCACAGCACTGAGCAAGGCTGGCCCCGCCATACCCACCC
CAGCAGTCTCTTCTGCACTGGCCGTGGCGGTCCCCCTAGGGCCCATCATGGCAGTCACAGCAGCCCCAGCCATGG
TGGCCACCTGGGGACAGTGACAAAGGACGGACAGATGCCCGCCAGAAGGAGCTGCCTTAAATGGCCCAAGTGTG
ATGCTGCTGCCGCCCGGCCACGCCCCACCTGGTCAAGCTGCCTCCTTAATCGAGAAAACCTACCTGGTGATGCAA
TCTTTTTTTTTTAAATTTAATTTAATTTTAAATAAATGCTGCATTGGTAAAGCTGGCAGTTGAACCAGTTGGA
CGGCCAGCTTGGCTCTCTTCTGCTGAGTGGGCTCTCAGGTCACTCGTGGCTGCTGGAGGACAGAGGGGCAC
CTCAGCCGCCCCAAGCCAGAGCACAGCAATAAGTGGCCTGCAGGAGCCGGGTGGGGGTGGGGGGGGCAGG
ACCCTGAGATGCCACCAGGACCTGATGGGCCAGGAAGGGCGTGGACATGGAGGCTGTTTTTACAGTTTTTTTTT
TTGTGTTTTGTTTTTAAAGAATACAGAAGGAGCCAAGCTTTTTTGACTTTGTATCCAGCTGCAAGCTCAGGGC

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FIGURE 357B

AGAGTCAAGGGCCTGGGTTGGAAAAACCTGACTCACAGGAATGCATAATTGACCCTTGCAGCTACCCAATAGCCC
TTGGAGCTGGCACTGAACCAGGCTGCAAGATTGACTGCCTTAAAAACACAAGGCCCTCTAGGCCTGGCAGGGAT
GTCCCTGTGCCCAGCACAGGGTGCCTGGCAGGGGGAGACCACAGGTATGCAGGTGGGGGGACATGGTGTGGCACT
GGGGGCTCGAAGACTGGTTTCTAGCACTACCGGTCACGGCCATGTCGTCCTAGAAGGGTCCAGAAGATTATTTTA
CGTTGAGTCCATTTTAAATGTTCTGATCACCTGACAGGGCACCCCAAACCCCAACTCCCAATAAAAAGCCGTGAC
GTTCGG

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FIGURE 358

MFWKFDLNTTSHVDKLLDKEHVTLQELMDEDDILQECKAQNKLLDFLCRQQCMEELVSLITQDPPLDMEEKVRF
KYPNTACELLTCDVPQISDRLGDESLLSLLYDFLDHEPPLNPLLASFSTIGNLIARKTEQVITFLKKKDKFI
SLVLKHIGTSALMDLLRLVSCVEPAGLRQDVLHWNEEKVIQRLVELIHPSQDEDRQSNASQTLCDIVRLGRDQ
GSQIQEALPDPLLTALLESQDCVEQLLKNMFDGDRTESCLVSGTQVLLTLETRRVGTEGLVDSFSQGLERSYAV
SSSVLHGIEPRLKDFHQLLLNPPKKKAILTTIGVLEEPLGNARLHGARLMAALLHTNTPSINQELCRLNTMDLLL
DLFFKYTWNNFLHFQVELCIAAILSHAAREERTEASGSESERVEPPHENGNSLETQPAASLPDNTMVTHLFQKC
CLVQRILEAWEANDHTQAAGGMRRGNMGLTRIANAVVQNLERGPVQTHISEVIRGLPADCRGRWESFVEETLTE
TNRRTVDFLAFSDYQIQQMTANFVDQFGFNDEEFADQDDNINAPFDRIAEINFNIDADEDSPSAALFEACCSMRI
QPFDDDEDEDIWEEDSDTRCAARVMARPRFGAPHASESCSKNGPERGGQDGKASLEAHRDAPGAGAPPAPGKKEAP
PVEGDSEAGAMWTAVFDEPANSTPTAPGVVRDVGSSVWAAGTSAPEEKGWAKFTDFQPFCCSESGPRCSPVDTE
CSHAEGSRSQGPEKAFSPASPCAWNVCVTRKAPLLASDSSSSGGSHSEGDQKAASAMDAVSRGPGREAPPLPTV
ARTEEA VGRVGCADSRLLSPACPAPKEVTAAPAVAVPPEATVAIT TALS KAGPAIPTPAVSSALAVAVPLGPIMA
VTAAPAMVATLGTVTKDGQMPRQKELP

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FIGURE 359

GTTCCGGCGAGGAGGCCGCGCCAGTGACAGCGATGGCGCGGAGTCCGGCGCTCCAAGTTGTGGAGAAGCTGCAGG
CGCGCCTGGCCGCGAACC CGGACCCTAAGAAGCTATTGAAATATTTGAAGAACTCTCCACCCTGCCTATTACAG
TAGACATTCTTGGCGGAGACTGGGGTTGGGAAAACAGTAAATAGCTTGGCGAAAACACGAGCATGTTGGAAGCTTTG
CCAGGGACCTAGTGGCCAGTGGGAAGAAGCTGGTTCTGTGGAACGAAATGCTGAGCCTGATGAACAGGACTTTG
AGAAGAGCAATTCCCGAAAGCGCCCTCGGGATGCCCTGCAGAAGGAGGAGGAGATGGAGGGGGACTACCAAGAAA
CCTGGAAAGCCACGGGGAGCCGATCCTATAGCCCTGACCACAGGCAGAAGAAACATAGGAACTCTCGGAGCTCG
AGAGACCTCACAAAGTGTCTCACGGTCATGAGAGGAGAGATGAGAGAAAGAGGTGTACAGAATGTCACCAACTT
ACTCTTCAGACCCTGAGTCTTCTGATTATGGCCATGTTCAATCCCCTCCATCTTGTACCAGTCTCATCAGATGT
ACGTCGACCACTACAGATCCCTGGAGGAGGACCAGGAGCCCATGTTTTCACACCAGAAGCCTGGGAAAGGCCACA
GCAATGCCTTTTCAGGACAGACTCGGGGCCAGCCAAGAACGACACCTGGGTGAACCCCATGGGAAAGGGGTTGTGA
GTCAAAACAGGAGCACAAATCTTCCACAAAGGACAAACGCCCCGTGGATGCCAAGAGTGATGAGAAGGCCTCTG
TGGTGAGCAGAGAGAAATCACACAAGGCCCTCTCCAAAGAGGAGAACCGAAGGCCACCCTCAGGGGACAATGCAA
GGGAGAAACCGCCCTCTAGTGGCGTAAAGAAAGAGAAGGACAGAGAGGGCAGCAGCCTGAAGAAGAAGTGTTCG
CTCCCTCAGAGGCCGCTTCAGACAACCACCTGAAAAAGCCAAAGCACAGAGACCCAGAGAAAGCCAAATTGGACA
AAAGCAAGCAAGGTCTGGACAGCTTTGACACAGGAAAAGGAGCAGGAGACCTGTTGCCCAAGGTAAAAGAGAAGG
GTTCTAACAACCTAAAGACTCCAGAAGGGAAAGTCAAAACTAATTTGGATAGAAAGTCACTGGGCTCCCTCCCTA
AAGTTGAGGAGACAGATATGGAGGATGAATTCGAGCAGCCAACCATGTCTTTTGAATCCTACCTCAGCTATGACC
AGCCCCGGAAGAAAAAGAAAAAGATTGTGAAAACCTTCAGCCACGGCACTTGGAGATAAAGGACTTAAAAAAATG
ACTCTAAAAGCACTGGTAAAACTTGGACTCAGTTCAGAAATTACCCAAGGTGAACAAAACCAAGTCAGAGAAGC
CGGCTGGAGCTGATTTAGCCAAGCTGAGAAAGGTGCCTGATGTGTTGCCAGTGTGCCAGACCTCCCGTTACCCG
CGATACAGGCCAATTACCGTCCACTGCCTTCCCTCGAGCTGATATCCTCCTTCCAGCCAAAGCGAAAAGCGTTCT
CTTACCCCCAGGAAGAAGAAGAGCTGGATTTACTGGGCGCAGAATGAATTCCAAGATGCAGGTGTATTCTGGTT
CCAAGTGTGCTATCTCCCTAAAATGATGACCTTGACACAGCAATGCATCCGAGTACTTAAAAACAACATCGATT
CAATCTTTGAAGTGGGAGGAGTCCCATACTCTGTTCTTGAACCCGTTTGGAGAGGTGTACACCTGATCAGCTGT
ATCGCATAGAGGAATACAATCATGTATTAATTGAAGAAACAGATCAATTATGGAAAGTTCATTGTCACCGAGACT
TTAAGGAAGAAAGACCCGAAGAGTATGAGTCGTGGCGAGAGATGTACCTGCGGCTTCAGGACGCCCGAGAGCAGC
GGCTACGAGTACTAACAAGAATATCCAGTTCGCACATGCCAATAAGCCCAAAGGCCGACAAGCAAAGATGGCCT
TTGTCAACTCTGTGGCCAAGCCACCTCGTGACGTCCGGAGGAGGCAGGAAAAGTTTGGAAACGGGAGGAGCAGCTG
TCCCTGAGAAAATCAAGATCAAGCCAGCCCCGTACCCCATGGGAAGCAGCCATGCTTCCGCCAGTAGCATCAGCT
TTAACCCAGCCCTGAGGAGCCGGCCTATGATGGCCCAAGCACCAGCAGTGCCCACTTGGCACCAGTGGTCAGCA
GCACTGTTTCCTATGATCCTAGGAAACCCACTGTGAAGAAAATTGCCCAATGATGGCCAAGACAATTAAAGCTT
TCAAGAACAGATTCTCCCGACGATATACTGAGGACTTGCTTGGAAATGGAATCTGGGGAGGCAGGAATACAAGG
ACAGTGGGGGTTGGGGAATGGAATTCTACAGGAGACTGGAGTCTTGCTTTGTGGATCCTTTTGGTCTCCGAGTCT
GCAGTCTGCAGGTGCTGCCCCGGAACCTGCGTGCCACAGCCCCGCTCCCTGCCTGGAGCACACTTTAGAATT
CTGAAGATGTGAAGCCTCTGTCTCACTGAGGATTTTAAAGGTCAATTATACTTTTGTGTTTCATTAGCATCTTG
TAAACTATAAGACGTAGTTTTAATTAATAAATATTGCCCCCAGATGTTAAA

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FIGURE 360

MAAESALQVVEKLQARLAANPDPKKLLKYLKKLSTLPITVDILAETGVGKTVNSLRKHEHVGSFARDLVAQWKKL
VPVERNAEPDEQDFEKSNSRKRPRDALQKEEEMEGDYQETWKATGSRSYSPDHRQKKHRKLSELERPHKVSHGHE
RRDERKRCHMSPTYSSDPESDYGHVQSPPSCTSPHQMYVDHYRSLEEDQEPVSHQKPGKGHSNAFQDRLGAS
QERHLGEPHGKGVVSQNKEHKSSHDKRPVDAKSDEKASVVSREKSHKALSKEENRRPPSGDNAREKPPSSGVKK
EKDREGSSLKKKCLPPSEAASDNHLKKPKHRDPEKAKLDKSKQGLDSFDTGKGAGDLLPKVKEKGSNNLKTPEGK
VKTNLDRKSLGSLPKVEETDMEDEFEQPTMSFESYLSYDQPRKKKKKIVKTSATALGDKGLKKNDKSTGKNLDS
VQKLPKVNKTSEKPAGADLAKLRKVPDVLPLVLPDLPLPAIQANYRPLPSLELISSFQPKRKAFSSPQEEEEAGF
TGRRMNSKMQVYSGSKCAYLPKMMTLHQQCIRVLKNNIDSIFEVGGVPYSVLEPVLERCTPDQLYRIEYNHVL
EETDQLWKVHCHRDFKEERP EYESWREMYLRLQDAREQRLRVLTKNIQFAHANKPKGRQAKMAFVNSVAKPPRD
VRRRQEKFGTGGA AVPEKIKIPAPYPMGSSHASASSISFNPSPEEPAYDGPSTSSAHLAPVVSSTVSYDPRKPT
VKKIAPMMAKTIKAFKNRFSRR

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FIGURE 361

AGCAGAGCACACAAGCTTCTAGGACAAGAGCCAGGAAGAAACCACCGGAAGGAACCATCTCACTGTGTGTAAACA
TGACTTCCAAGCTGGCCGTGGCTCTCTTGGCAGCCTTCCTGATTTCTGCAGCTCTGTGTGAAGGTGCAGTTTTGC
CAAGGAGTGCTAAAGAAGCTTAGATGTCAAGTGCATAAAGACATACTCCAAACCTTTCCACCCCAAATTTATCAAAG
AACTGAGAGTGATTGAGAGTGGACCACACTGCGCCAACACAGAAATTATTGTAAAGCTTTCTGATGGAAGAGAGC
TCTGTCTGGACCCCAAGGAAAAGTGGGTGCAGAGGGTTGTGGAGAAGTTTTTGAAGAGGGCTGAGAATTCATAAA
AAAATTCATTCTCTGTGGTATCCAAGAATCAGTGAAGATGCCAGTGAAACTTCAAGCAAATCTACTTCAACACTT
CATGTATTGTGTGGGTCTGTTGTAGGGTTGCCAGATGCAATACAAGATTCCTGGTTAAATTTGAATTTCAAGTAAA
CAATGAATAGTTTTTTCATTGTACCATGAAATATCCAGAACATACTTATATGTAAAGIATTATTTATTTGAATCTA
CAAAAAACAACAAATAATTTTAAATATAAGGATTTTCCCTAGATATTGCACGGGAGAATATACAAATAGCAAAAT
TGAGCCAAGGGCCAAGAGAATATCCGAACTTTAAATTTCAAGGAATTGAATGGGTTTGCTAGAATGTGATATTTGAA
GCATCACATAAAAAATGATGGGACAATAAATTTTGCCATAAAGTCAAATTTAGCTGGAAATCCTGGATTTTTTTCT
GTTAAATCTGGCAACCCCTAGTCTGCTAGCCAGGATCCACAAGTCCTTGTTCCACTGTGCCTTGTTTCTCCTTTA
TTTTCTAAGTGGAAAAAGTATTAGCCACCCTTACCTCACAGTGATGTTGTGAGGACATGTGGAAGCACTTTAAG
TTTTTTCATCATAACATAAATTTATTTTCAAGTGTAACTTATTAACCTATTTATTATTTATGTATTTATTTAAGCA
TCAAATATTTGTGCAAGAATTTGGAAAAATAGAAGATGAATCATTGATTGAATAGTTATAAAGATGTTATAGTAA
ATTTATTTTATTTTAGATATTAAATGATGTTTATTAGATAAATTTCAATCAGGGTTTTTAGATTAAACAAAGAA
ACAATTGGGTACCCAGTTAAATTTTCATTTCAAGATAAACAACAAATAATTTTTTAGTATAAGTACATTATTGTTT
ATCTGAAAGTTTTAATTGAACTAACAATCCTAGTTTGATACTCCAGTCTTGTCATTGCCAGCTGTGTTGGTAGT
GCTGTGTTGAATTACGGAATAATGAGTTAGAACTATTAAACAGCCAAAACCTCCACAGTCAATATTAGTAATTTT
TTGCTGGTTGAAACTTGTTTATTATGTACAAATAGATTCTTATAATATTATTTAAATGACTGCATTTTAAATAC
AAGGCTTTATATTTTAACTTTAAGATGTTTTATGTGCTCTCCAAATTTTTTTTACTGTTTCTGATTGTATGGA
AATATAAAGTAAATATGAACATTTAAATATAATTTGTTGTCAAAGTAAAAAAAAAAAAAA

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FIGURE 362

MTSKLAVALLAAFLISAALCEGAVLPRSAKELRCQCIKTYSKPFHPKFIKELRVIESGPHCANTEIIVKLSDGRE
LCLDPKENWVQRVVEKFLKRAENS

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FIGURE 363

GCCGGGAGCGCCGCTCCAGCGAGGCGCGGGCTGTGGGGCCGCCGCTGCCTGGCCCCGCTCGCCCGTGCCGGCCG
CTCGCCCGCCATGCCTGGCTTCGACTACAAGTTCCTGGAGAAGCCCAAGCGACGGCTGCTGTGCCCACTGTGCGG
GAAGCCCATGCGCGAGCCTGTGCAGGTTTCCACCTGCGGCCACCGTTTCTGCGATACCTGCCTGCAGGAGTTCCT
CAGTGAAGGAGTCTTCAAGTGCCCTGAGGACCAGCTTCCTCTGGACTATGCCAAGATCTACCCAGACCCGGAGCT
GGAAGTACAAGTATTGGGCCTGCCTATCCGCTGCATCCACAGTGAGGAGGGCTGCCGCTGGAGTGGGGCCACTACG
TCATCTACAGGGCCACCTGAATACCTGCAGCTTCAATGTCAATTCCTGCCCTAATCGCTGCCCCATGAAGCTGAG
CCGCCGTGATCTACCTGCACACTTGCAGCATGACTGCCCAAGCGGCGCCTCAAGTGCGAGTTTGTGGCTGTGA
CTTCAGTGGGGAGGCCTATGAGAGCCATGAGGGTATGTGCCCCAGGAGAGTGTCTACTGTGAGAATAAGTGTGG
TGCCCGCATGATGCGGCGGCTGCTGGCCAGCATGCCACCTCTGAGTGCCCCAAGCGCACTCAGCCCTGCACCTA
CTGCACTAAGGAGTTCGTCTTTGACACCATCCAGAGCCACCAGTACCAGTGCCCCAAGGCTGCCTGTTGCCTGCC
CAACCAATGTGGTGTGGGCACTGTGGCTCGGGAGGACCTGCCAGGCATCTGAAGGACAGCTGTAAACCCGCCCT
GGTGTCTGCCCAATTCAAAGACTCCGGCTGCAAGCACAGGTGCCCTAAGCTGGCAATGGCACGGCATGTGGAGGA
GAGTGTGAAGCCACATCTGGCCATGATGTGTGCCCTGGTGAGCCGGAACGGCAGGAGCTGCAGGAGCTTCGGCG
AGAGCTGGAGGAGCTATCAGTGGGCAGTGATGGCGTGCTCATCTGGAAGATTGGCAGCTATGGACGGCGGCTACA
GGAGGCCAAGGCCAAGCCCAACCTTGAGTGCTTCAGCCCAGCCTTCTACACACATAAGTATGGTTACAAGCTGCA
GGTGTCTGCATTCCCTCAATGGCAATGGCAGTGGTGAGGGCACACACCTCTCACTGTACATTCTGTGTGCTGCCTGG
TGCCTTTGACAATCCTTGAGTGGCCCTTTGCCCGCCGTGTACCTTCTCCCTGCTGGATCAGAGCGACCCITGG
GCTGGCTAAACCACAGCACGTCACTGAGACCTTCCACCCCGACCCAAACTGGAAGAATTTCCAGAAGCCAGGCAC
GTGGCGGGGCTCCCTGGATGAGAGTTCTCTGGGCTTTGGTTATCCCAAGTTCATCTCCACCAGGACATTTCGAAA
GCGAAACTATGTGCGGGATGATGCAGTCTTCATCCGTGCTGCTGTTGAAGTGCCTCGGAAGATCCTCAGCTGAGT
GCAGGTGGGGTTGAGGGGAAAGGACGATGGGGCATGACCTCAGTCAGGCACTGGCTGAAGTGGAGAGGGGGCC
GGACCCCGCTCAGCTGCTTCTGCTGCCTAGGTTCTGTTACCCCATCCTCCCTCCCCAGCCACCACCCTCAGGTG
CCTCCAATTGGTGCTTCAGCCCTGGCCCTGTGGGGAACAGGTCTTGGGGTCATGAAGGGCTGGAAACAAGTGAC
CCCAGGGCCTGTCTCCCTTCTGGGTAGGGCAGACATGCCCTGGTGCCGGTCACACTCTACACGGACTGAGGTGC
CTGCTCAGGTGCTATGTCCCAAGAGCCATAAGGGGGTGGGAATTGGGGAGGGAGAAAGGGTAGTTCAAAGAGTCT
GTCTTGAGATCTGATTTTTTCCCCCTTTACCTAGCTGTGCCCCCTCTGGTTATTTATTTCTTAGTGCCAGGAGG
GCACAGCAGGGGAGCCCTGATTTTTTAATAAATCCGGAATTGTATTTATT

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FIGURE 364

MPGFDYKFLEKPKRRLLCPLCGKPMREPQVSTCGHRFCDTCLQEFLSEGVEFKCPEDQLPLDYAKIYPDPELEVQ
VLGLPIRCIHSEEGCRWSGPLRHLQGHNLNCSFNVIPCPNRCMPKLSRRDLPAHLQHDCPKRRLKCEFCGCDGSG
EAYESHEGMCPOESVYCENKCGARMMRGLLAQHATSECPKRTQPCTYCTKEFVFDTIQSHQYQCPRLPVACPNQC
GVGTVAREDLPGHLKDSCNTALVLCPFKDSGCKHRCPKLAMARHVEESVKPHLAMMCALVSRQRQELQELRRELE
ELSVGSDGVLIWKIGSYGRRLQEAKAKPNLECFSPAIFYTHKYGYKLQVSAFLNGNGSGEGTHLSLYIRVLPGAFD
NLLEWPFARRVTFSLDQSDPGLAKPQHVTETTFHPDPNWKNFQKPGTWRGSLDESSLGFGYPKFISHQDIRKRN
VRDDAVFIRAARELPRKILS

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FIGURE 365

CAGAGGTCAGACGGTCTAGCGCTGCGTGGGCCATCGTGCAGCTCCGACCGCGAGCGTCTCGCGCCCCGGCGTCCG
CGGAGGCGATGGTGGACGAGGGCCAGCTGGCCTCGGAGGAGGAGGAGGCGGAGCACGGGCTGTTGCTCGGGCAGC
CCAGCAGCGGCGCGGCCCGAGCCCCGAGGGAAGACGAGGAAGGGGACGATGAGTTTGACGATGAGGCCCCGG
AGGAGCTGACTTTTCGCCAGCGCCCAGGCGGAAGCGAGAGAAGAGGAGCGGCGAGTGCGGGAGACCGTGCGCAGGG
ATAAACGCTCCTGAAGGAGAAGAGGAAGCGACGCGAGGAGCTGTTTCATCGAACAGAAGAAAAGAAAATCCTTC
CAGACACTATTTTGGAGAAGTTAACCACAGCTTCACAGACTAACATCAAGAAATCGCCAGGAAAGGTGAAAGAAG
TTAATTGCAAAAGAAAATGAAGACTGTGAAAAGGAAATGACTCCAAGAAAGTTAAAGTACAAAAAGTACAGT
CTGTCAGCCAGAATAAAAGCTACTTGGCCGTAAGGCTAAAAGACCAAGATCTGAGAGATTCAAGGCAACAAGCAG
CACAAGCCTTCATACATAATTCATTATATGGGCCAGGAACCAACAGGACTACTGTAAATAAGTTCCTGTCTCTTG
CCAACAAGAGGTTACCAGTGAAAAGAGCTGCTGTCCAGTTTTTGAATAATGCTTGGGGAATCCAAAAAACAAA
ATGCCAAGAGGTTTAAAGACGGTGATGGTCAGAAAGATGAAAATAAGAAGTAAATCAATGCTAAATGAAGAA
TCTGTACTTTGTATGTATAGAATTTATCTAATAAATCATTATAGATCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 366

MVQLRPRASRAPASAEAMVDEGQLASEEEEEAEHGLLLGQPSSGAAAEPLDEDEEGDDEFDDEAPEELTFASAQAE
AREEERRVRETVRDRTLLEKRRRREELFIEQKKRLLPDTILEKLTTASQINIKKSPGKVKEVNLQKKNEDCE
KGND SKKVQKVQSVSONKSYLAVRLKDQDLRDSRQAAQAFIHNSLYGPGTNRITTVNKFLSLANKRLPVKRAA
VQFLNNAWGIQKKQNAKRFKRRWMVRKMKTKK

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FIGURE 367

GCAGCAGGCCAAGGGGGAGGTGCGAGCGTGGACCTGGGACGGGTCTGGGCGGCTCTCGGTGGTTGGCACGGGTTT
GCACACCCATTCAAGCGGCAGGACGCACCTTGTCTTAGCAGTTCTCGCTGACCGCGCTAGCTGCGGCTTCTACGCT
CCGGCACTCTGAGTTTCATCAGCAAACGCCCTGGCGTCTGTCTCACCATGCCTAGCCTTTGGGACCGCTTCTCGT
CGTCGTCCACCTCCTCTTCGCCCTCGTCTTGCCCCGAACCTCCACCCAGATCGGCCGCCGCGCTCAGCCTGGG
GGTCGGCGACCCGGGAGGAGGGGTTTGACCGCTCCACGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA
GCAACAGTGGCTTCGGGCCGAGGAAGACACGGCTTACCTGGATGGGGTGTCTGTGCCCGACTTCGAGCTGCTCA
GTGACCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGCTGCAGGAGAGCCTGGCCCAGGCGGGCTGG
GCTCTCGACGCCCTGCGCGCTGCTGATGCCAGTTCGTAAGCCAGGTGGGCAAAGAACTACTGCGCCTGG
CCTACAGCGAGCCGTGCGGCTGCGGGGGGCGCTGCTGGACGTCTGCGTGGAGCAGGGCAAGAGCTGCCACAGCG
TGGGCCAGCTGGCACTCGACCCAGCCTGGTGGCCACCTTCAGCTGACCTCGTGTGCGCCTGGACTCACGAC
TCTGGCCAAGATCCAGGGGCTGTTTAGCTCCGCCAACTCTCCCTTCCTCCCTGGCTTCAGCCAGTCCCTGACGC
TGAGCACTGGCTTCCGAGTCATCAAGAAGAAGCTGTACAGCTCGGAACAGCTGCTCATTGAGGAGTGTTGAACTT
CAACCTGAGGGGGCCGACAGTGCCTCCAAGACAGAGACGACTGAACTTTTGGGGTGGAGACTAGAGGCAGGAGC
TGAGGGACTGATTCCAGTGGTTGGAAAACAGGCAGCCACCTAAGGTGGAGGTGGGGGAATAGTGTTCCTCAGG
AAGCTCATGAGTTGTGTGCGGGTGGCTGTGCATTGGGGACACATACCCCTCAGTACTGTAGCATGGAACAAAGG
CTTAGGGGCCAACAAGGCTTCAGCTGGATGTGTGTGTAGCATGTACCTTATTATTTTGTACTGACAGTTAAC
AGTGGTGTGACATCCAGAGAGCAGCTGGGCTGCTCCCGCCCCAGCCTGGCCCAGGGTGAAGGAAGAGGCACGTGC
TCCTCAGAGCAGCCGGAGGGAGGGGGAGGTGCGAGGTGCTGGAGGTGGTTTGTGTATCTTACTGGTCTGAAGGG
ACCAAGTGTGTTTGTGTTTGTGTTTGTATCTTGTGTTTCTGATCGGAGCATCACTACTGACCTGTTGTAGGCAGC
TATCTTACAGACGCATGAATGTAAGAGTAGGAAGGGGTGGGTGTCAGGGATCACTTGGGATCTTTGACACTTGAA
AAATTACACCTGGCAGCTGCGTTTAAGCCTTCCCCATCGTGTACTGCAGAGTTGAGCTGGCAGGGGAGGGGCTG
AGAGGGTGGGGCTGGAACCCCTCCCCGGGAGGAGTGCCATCTGGGTCTTCATCTAGAACTGTTTACATGAAGA
TAAGATACTCACTGTTTATGAATACACTTGATGTTCAAGTATTAAGACCTATGCAATATTTTTACTTTTCTAAT
AAACATGTTTGTAAACAAAAAAAAAAAAAAAAA

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FIGURE 368

MPSLWDRFSSSSSTSSSPSSLPRTPTPDRPPRSAWGSATREEGFDRSTSLESSDCESLDSSNSGFGPEEDTAYLDG
VSLPDFELLSDPEDEHLCANLMQLLQESLAQARLGSRRLPARLLMPSQLVSQVGKELLRLAYSEPCGLRGALLDVC
VEQGKSCHSVGQLALDPSLVPTFQLTLVLRLDSRLWPKIQLGFSSANSPFLPGFSQSLTLSTGFRVIKKKLYSSE
QLLIEEC

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FIGURE 369

ATGCATCGTGATTCCGTGTCCATTGGACTGTAAGGTTTATGTAGGCAATCTTGGAACAATGGCAACAAGACGGAA
TTGGAACGGGCTTTTGGCTACTATGGACCACTCCGAAGTGTGTGGGTTGCTAGAAACCCACCCGGCTTTGCTTTT
GTTGAATTTGAAGATCCCCGAGATGCAGCTGATGCAGTCCGAGAGCTAGATGGAAGAACAATATGTGGCTGCCGT
GTAAGAGTGGAACTGTCGAATGGTGAAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGTCGCCCT
CGAGATGATTATCGTAGGAGGAGTCCTCCACCTCGTCGCAGATCTCCAAGAAGGAGAAGCTTCTCTCGCAGCCGG
AGCAGGTCCCTTTCTAGAGATAGGAGAAGAGAGAGATCGCTGTCTCGGGAGAGAAATCACAAGCCGTCCCGATCC
TTCTCTAGGTCTCGTAGTCGATCTAGGTCAAATGAAAGGAAATTAGAAGACCAGTTTGCAAAAGTGGTGTAGAGGA
TCC

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FIGURE 370

MHRDSCPLDCKVYVGNLGNNGNKTELERAFGYYGPLRSVWVARNPPGFVFEFEDPRDAADAVRELDGRTLGCGR
VRVELSNGEKRSRNRGPPPSWGRRPRDDYRRRSPPRRRSPPRRRSFSRSRSRSLSRDRRRERSLSRERNHKPSRS
FSRSRSRSRSNERK